



CITY OF BURLINGTON

PHASE II STORMWATER  
2008 ANNUAL REPORT

General Permit #3-9014  
NPDES Permit #VTR040000

Submitted by:  
Burlington Public Works

April 2009

## A. INTRODUCTION

This report is being submitted as part of the City of Burlington's Phase II Stormwater Plan per the NPDES (National Pollution Discharge Elimination System) requirements. It follows the same format used in previous years and includes the following information as discussed in Section H of the city's plan:

- Status of compliance with permit conditions.
- Results of information collected.
- A summary of stormwater activities planned for the next annual cycle.
- Any proposed changes as outlined in Section F of the stormwater plan.
- If applicable, provide notice as to whether or not another entity is responsible for any of the permit obligations.

It is important to note that Mayor Kiss formed a Stormwater Task Force in 2006 that has been actively addressing regulatory, technical and budgetary issues associated with stormwater in Burlington for over one year. This Task Force is comprised of city officials from the Code Enforcement, Community & Economic Development, Planning & Zoning, and Public Works Departments as well as community members from the Burlington Conservation Board and a representative from the Vermont League of Cities & Towns.

## B. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS AND INFORMATION RESULTS

This section will outline the tasks proposed in the original stormwater Phase II plan, the status of compliance with the plan, and applicable results. Each of these tasks are arranged in accordance with the required six minimum control measures.

### **1. Public Education/Outreach Program**

The City of Burlington continues to be a participant in the Chittenden County Regional Stormwater Education Program (RSEP) in accordance with section E1 of the stormwater plan.

During the 2008 program year (March 10, 2008 to March 9, 2009), RSEP built on its previous efforts by expanding the media reach and toolbox of materials for its public education and outreach campaign. The multifaceted campaign used both paid and unpaid media to educate the public about the effects of stormwater runoff on water bodies and simple steps that the public can take to reduce these effects. Key messages include stormwater runoff and stormwater systems, tips on prevention methods related to soil and lawn care (fertilizer/chemicals) and home construction erosion or debris and auto care. Marketing Partners, Inc. continues to work on contract with RSEP to implement the public outreach campaign. The complete 2008 Summary can be found in Appendix A.

This past year the City teamed with NEMO Water Quality Coordinator Emma Melvin to construct a demonstration rain garden at the boat launch parking lot near the Coast Guard station. Included with the garden is a sign that will be installed this spring to educate the public on impacts of impervious cover and what practices, like rain gardens, can be done to mitigate these impacts. Appendix A also contains a photo of the site and sign.

### **2. Public Involvement/Participation**

On May 3, 2008 the Community and Economic Development Office (CEDO) once again played a key role in sponsoring Green Up Day in Burlington. Despite the rainy weather, a

total of nearly 400 volunteers collected 299 bags of garbage and 160 tires, removed graffiti and groomed the greenbelts that entailed raking debris and leaves. Appendix B contains an email from a Green Up coordinator summarizing cleanup efforts.

Like in previous years the Englesby Brook watershed was also targeted on Green Up Day. Given the limited pool of volunteers we worked on a huge pile of tires off Sears Lane that was dumped by a now defunct auto shop. The City has tried for years with limited success to get these former landowners to remove the tires. The 160 tires mentioned above were all taken from this site starting with two and ending with four volunteers.

### **3. Illicit Discharge and Elimination**

A select set of stormwater outfalls were visited in 2008 for testing. Grab samples for *E. Coli* bacteria were taken on those outfalls that had dry weather flow and pads for optical brightener (OB) testing were placed in all outfalls. The optical brightener test is a low cost procedure that detects fluorescent white dyes added to nearly all the laundry detergents to whiten cotton fabrics without the use of chlorine bleach. These dyes fluoresce in the blue region of the visible spectrum when exposed to longwave ultraviolet (UV) light. Unbleached cotton pads are placed in stormwater outfalls where they continuously sample flow and absorb traces of this dye, if present, for the period of time they are in service, usually 1 to 2 weeks. The pads are removed, dried and then viewed under a UV lamp. Pads from stormwater outfalls that fluoresce more than the control pad would indicate a possible direct or indirect contamination from wastewater. Appendix C at the end of this document shows the outfall locations along with discharge monitoring reports for sampled outfalls in a format approved by the Vermont Department of Environmental Conservation (VTDEC).

The Plattsburgh Avenue outfall was found once again to be discharging high concentrations of bacteria and was positive for optical brightener. After sampling a number of manholes upstream it was determined that another house on Turf Road was found to have its sewer lateral directly connected to the storm system. The landowner was contacted and given 30 days to disconnect. This work was done and subsequent testing showed negative for optical brightener and low bacteria levels. In 2004 an adjacent property was found to have an illicit connection that was disconnected. We had done follow-up bacteria work at that time and had believed that there was only one illicit connection on this stormwater system. At that time the camera crew stopped video of the storm pipe when they found the first connection. A lesson learned from this situation is to always continue video from manhole to manhole.

In May 2008 an Illicit Discharge Detection and elimination (IDDE) Summary Report was filed with VTDEC. It was a summary of all activities done during the first Phase II permit cycle (March 2003 – March 2008).

### **4. Construction Site Stormwater Runoff Control**

It is the opinion of the city that erosion is generated by all projects that disturb soils and that construction site erosion can be controlled in all cases. An erosion and sediment control checklist was provided in the 2004 Annual Report, and is being used on all projects that disturb soil.

The Stormwater Task Force was busy working on a combined stormwater, erosion control and wastewater ordinance. In December 2008 the City Council adopted a revised Chapter 26 Ordinance, now entitled “Wastewater, Stormwater and Pollution Control”. In summary, this ordinance revised wastewater requirements to meet increased knowledge and added stringent

stormwater and erosion control requirements. It also allows for the City to charge a fee to every city property for stormwater based upon impervious area similar to a utility. This ordinance can be found in Appendix E or can be downloaded with other pertinent documents at <http://www.ci.burlington.vt.us/stormwater/>.

The VTDEC has requested that the city provide a list of projects under construction in 2008 that met the one acre impervious and the new one acre disturbed area thresholds for state permitting requirements. According to the Department of Planning and Zoning, the only project that is above these thresholds is UVM's Jeffords Building. This project has an NPDES stormwater permit #3471-INDS.1.

## **5. Post-Construction Stormwater Management in New Development and Redevelopment**

Section 26-3-26 of the ordinance in Appendix E contains specific language regarding post-construction stormwater management. It includes requirements for:

- Stormwater design plans
- Operation, maintenance and repair plans
- Landscaping and stabilization requirements
- Access to stormwater systems for inspections during and after construction
- Penalties and enforcement procedures

## **6. Pollution Prevention and Good Housekeeping for Municipal Operations**

A system for inspection and cleaning of the municipal stormwater system continued in Burlington. According to the right-of-way group in Public Works, in 2008 there were 433 catch basins cleaned and 45 basins rebuilt. Each street was swept a minimum of two times in 2008. Between catch basin cleaning and street sweeping an estimated 400 tons of sediment was removed.

In April 2008 a couple of Public Works employees attended a Low Impact Development (LID) seminar. This day long event covered tools for implementing LID; obstacles, challenges and strategies to LID, and cold climate performance. The afternoon sessions included tours of LID practices (porous pavement, rain gardens, bioretention) and workshops on model ordinances and site plan review. The revised ordinance in Appendix E contains language allowing LID practices as does a draft credit manual found at:

<http://www.ci.burlington.vt.us/stormwater/>

In September 2008 a number of city department employees attended a stormwater workshop sponsored by E.J. Prescott, a distributor of water, sewer, drain and stormwater products. This 5 hour workshop included a number of sediment and erosion control products available, when to use them and where to use them. The presentation included many slides showing what happens when products are used improperly. A copy of the signup sheet can be found in Appendix D.

A stormwater outfall pipe at the end of Fletcher Place was replaced in the fall of 2008. Installed in the late 1930s, this galvanized metal pipe had corroded to a point where stormwater washed out the steep bank. While sediment from this area was being contained in a stormwater pond at Riverwatch condominiums prior to discharge into the Winooski River, further bank destabilization would result in a loss of trees and a wastewater pump station at the end of the street. The 15" metal pipe was replaced with PVC and the entire bank was armored with stone. Appendix D shows before and after pictures.

C. ACTIVITIES PLANNED FOR THE CURRENT ANNUAL CYCLE

All activities starting in 2009 shall be in accordance with the current management plan. This includes complete outfall monitoring, training, construction site monitoring, post-construction monitoring of new projects, and continued review of municipal operations.

D. PROPOSED CHANGES TO THE STORMWATER PLAN OR TIMELINE

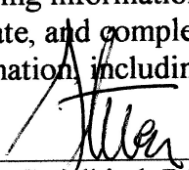
No changes are proposed at this time.

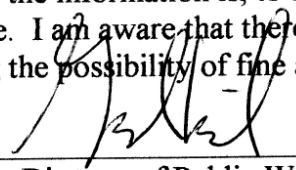
E. CHANGE IN RESPONSIBILITY FOR PERMIT OBLIGATIONS

No changes are proposed at this time. While a new stormwater employee is expected to be hired in 2009, the Public Works Director will remain as authorized representative.

F. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

  
Steven Goodkind, P.E. Director of Public Works

  
4/1/09  
Date Signed

## APPENDIX A – PUBLIC OUTREACH AND EDUCATION

### **Chittenden County Regional Stormwater Educational Program Annual Review: 2008 Program Summary**

During the 2008 program year (March 10, 2008 - March 9, 2009), RSEP built on its previous efforts by expanding the media reach and toolbox of materials for its public education and outreach campaign. The multifaceted campaign used both paid and unpaid media to educate the public about the effects of stormwater runoff on water bodies and simple steps that the public can take to reduce these effects. Key messages include stormwater runoff and stormwater systems, tips on prevention methods related to soil and lawn care (fertilizer/chemicals) and home construction erosion or debris and autocare. Marketing Partners, Inc. continues to work on contract with RSEP to implement the public outreach campaign.

RSEP accomplished the goals outlined in the 2008 Communication Plan, including:

- **Post-campaign survey assessment and presentation of key findings.**
- **Refined campaign messaging to focus on those behavioral changes that continue to needed work.**
- **Developed a “Free Soil Test” initiative which was the focus of the Fall 2008 buy. The program included a partnership with the University of Vermont Agriculture Labs as well as a drive-to-web focus for all paid media.**
- **Planned sponsorship of Vermont Public Radio for the Fall 2008 buy to highlight the “Free Soil Test” initiative.**
- **Updates to the website to included a new landing page to allow Chittenden County residents to download a free soil test coupon. A custom database was developed to filter those who were living outside of the eligible counties.**
- **Conducted a paid media campaign throughout Chittenden County in Spring 2008 that includes two weeks of print ads, three weeks of spots airing on three of the top radio stations, three weeks of targeted broadcast television and a two week schedule of targeted cable television.**
- **Conducted a Fall 2008 campaign of an additional two weeks of spots airing on three of the top radio stations, three weeks of targeted broadcast television and a two week schedule of targeted cable television.**
- **New creative to support the Free Soil Test program was developed for radio, print and television.**
- **Compiled website and other media visibility tracking data in order to monitor outreach effectiveness.**
- **Continued to collaborate with partners, such as the Governor’s Clean & Clear Action Plan and public school officials, in furthering stormwater education outreach.**
- **Compiled materials (graphics, images and media graph) for the Municipal Sewer & Water Magazine editorial feature.**
- **Developed new graphics for the homepage and new content regarding excess stormwater and rain gardens, rain barrels.**
- **Created a summary to recap 2008 calendar year accomplishments.**

## APPENDIX A – PUBLIC OUTREACH AND EDUCATION

### Gross Impressions/Audience Reach Chittenden County Regional Stormwater Education Program Annual Review: 2008-2009 Program Year Summary

#### 1. Unpaid Media (Public Relations)

Print: 123,568 (based on circulation reported by media outlet)  
Insert: 47,000 (Champlain Water District Report)  
Online: 3,767 (based on monthly visitors reported by website)

Total unpaid impressions\*: 174,335

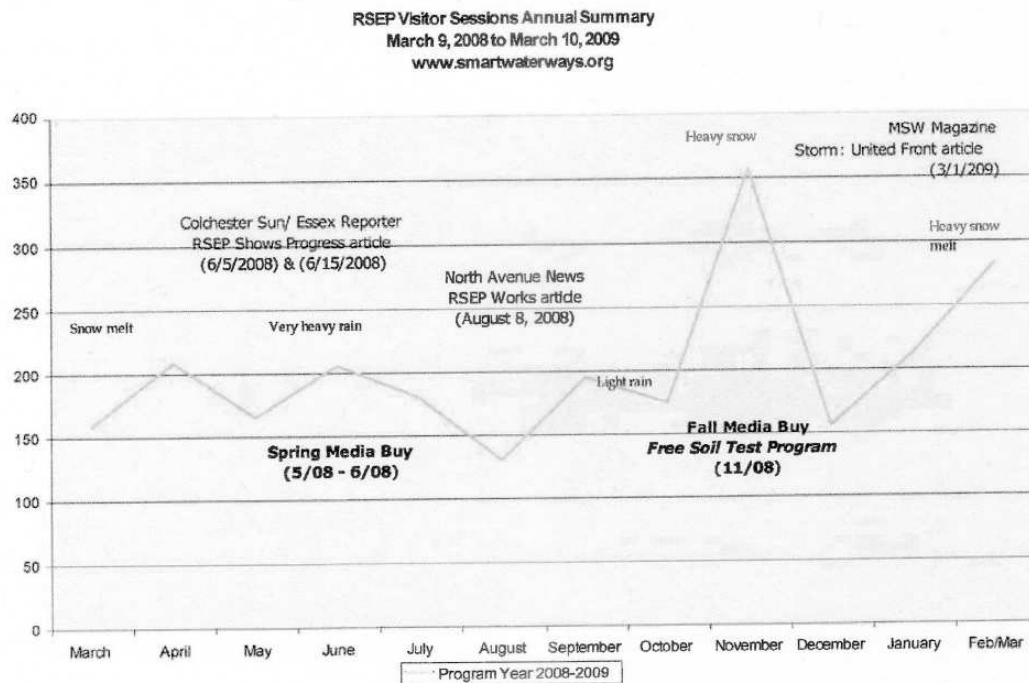
#### 2. Paid Media

Print: 1,479,132 (based on circulation reported by media outlet)  
TV: 2,960,640 (gross impressions – based on number of households)  
Radio: 670,000 (based on number of listeners age 12+, Mon – Sun, 6am to midnight)  
Front Porch Forum Online: 22,600 (based on number of subscribers reported by outlet)

Total paid impressions\*: 5,132,372

#### 3. Website

Below is the website visitor session information for the 2008-2009 program year. Website traffic increases are marked in conjunction with paid and unpaid media.



\*Impressions represent the possible total number of times a spot is heard/seen, not the number of actual persons who hear/see the ad. Unpaid RSEP visibility includes: any mention of RSEP, any mention of steering committee members and stormwater, informative pieces dealing with key messages – the effects of stormwater and the stormwater system, soil maintenance and lawn care (chemical/fertilizers), erosion and pollution, pet waste and auto care. Excludes articles solely on stormwater permitting.

## APPENDIX A – PUBLIC OUTREACH AND EDUCATION

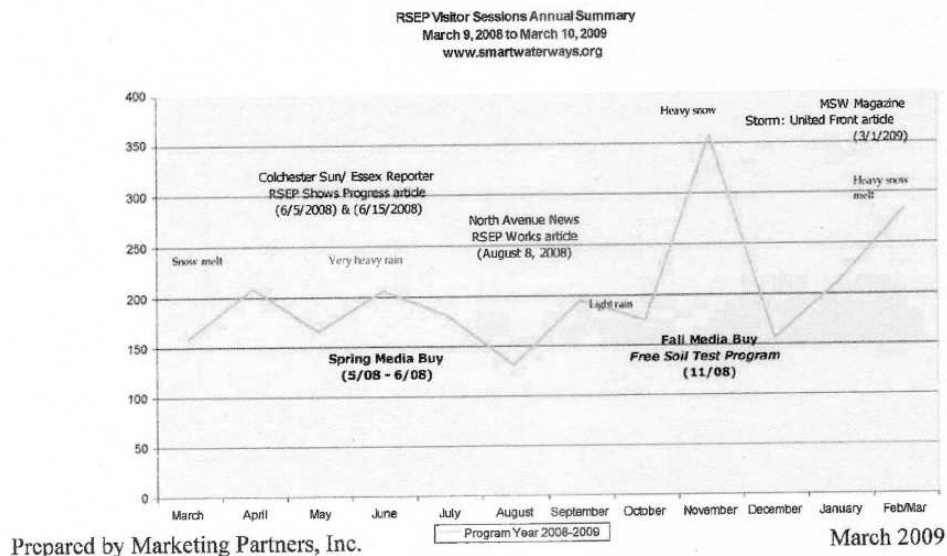
### Regional Stormwater Educational Program - 2008 Calendar Year Recap

During 2008, RSEP continued its work on a public education and outreach campaign. The multifaceted campaign included both paid and unpaid media, with an overall goal of increasing awareness and understanding of stormwater runoff pollution, prevention methods, and the connection between stormwater runoff and water quality. Marketing Partners, Inc. continues to work on contract with RSEP on the public outreach campaign.

Building on success of previous program efforts and as outline in the 2008 Communication Plan for March 10, 2008 to March 9, 2009 the following goals were accomplished:

- Post-campaign survey assessment and presentation of key findings.
- Refined campaign messaging to focus on those behavioral changes that continue to needed work.
- Developed a “Free Soil Test” initiative which was the focus of the Fall 2008 buy. The program included a partnership with the UVM Agriculture Labs as well as a drive-to-web focus for paid media.
- Planned sponsorship of Vermont Public Radio for the Fall 2008 buy to highlight the “Free Soil Test” initiative.
- Updates to the website to included a new landing page to allow Chittenden County residents to download a free soil test coupon. A custom database was developed to filter those who were living outside of the eligible counties.
- Conducted a paid media campaign throughout Chittenden County in Spring 2008 that includes two weeks of print ads, three weeks of spots airing on three of the top radio stations, three weeks of targeted broadcast television and a two week schedule of targeted cable television.
- Conducted a Fall 2008 campaign of an additional two weeks of spots airing on three of the top radio stations, three weeks of targeted broadcast television and a two week schedule of targeted cable television.
- New creative to support the Free Soil Test program was developed for radio, print and television.
- Compiled website and other media visibility tracking data in order to monitor outreach effectiveness.
- Continued to collaborate with partners, such as the Governor’s Clean & Clear Action Plan and public school officials, in furthering stormwater education outreach.
- Compiled materials (graphics, images and media graph) for the Municipal Sewer & Water Magazine editorial feature.
- Developed new graphics for the homepage and new content regarding excess stormwater and rain gardens, rain barrels.
- Created a summary to recap 2008 **calendar year** accomplishments.

Below is the website impression information for 2008. Website traffic increases are marked in conjunction with paid and unpaid media.






## APPENDIX A – PUBLIC OUTREACH AND EDUCATION

Rain Garden Sign (sign installation slated for spring 2009)

# Rain Gardens: A Natural Solution




**Stormwater Pollution**  
The health of our streams and lakes is impacted daily by harmful pollutants generated by human activity. These pollutants are derived from automobile wastes, road salts and sands, and fertilizers and pesticides deposited on our roadways, driveways, and parking lots. During rain events this accumulated pollution washes down our roads, into storm drains, and eventually flows to our streams and lakes.

As impervious surfaces increase, less rain water is absorbed by the soil and cleaned through the natural processes of plants and microbes. Instead, this water flows directly to our waterways via roadways, picking up toxic pollutants along the way.

Flash slugs of water to a stream during a rain storm also erode the stream channel, destroying aquatic habitat including fish and invertebrates. A large quantity of stormwater entering a stream or lake can quickly become a long-term impairment to the waterway.

### Rain Gardens

A natural solution to stormwater run-off is to plant a rain garden. Rain gardens are designed to capture stormwater runoff, remove pollutants, and restore groundwater. Rain gardens use the biochemical activity in mulch and soil to remove toxins from polluted water, preventing them from entering streams.



*Rain water flows from a driveway directly into a rain garden, thereby avoiding stormwater and reducing damage.*

Site Before Construction



Site During Construction



## APPENDIX B – GREEN UP 2008



**From:** Abby Russell  
**To:**  
**Date:** 5/7/2008 1:53:03 PM  
**Subject:** The City Thanks You!

**Many, many, many, thanks to all of you that came out to help us on a rainy Green-Up Day!** Luckily rain can't stop the power of our volunteers. The day was a great success.

**The totals for the day:**

372 Volunteers  
299 bags of garbage was collected  
631 green-belts cleaned  
160 tires were removed

Please consider being a site leader for Green-Up 09' on May 2nd. If you are interested, please contact Ita Meno, [imeno@ci.burlington.vt.us](mailto:imeno@ci.burlington.vt.us). 865-7172.

Thanks for your great efforts, the city is now Green and ready for Spring!

Go Green-Up!

Abigail Russell  
Community Development Specialist  
CCAN/CEDO  
125 College St, 2nd Floor  
Burlington, Vermont 05401  
[arussell@ci.burlington.vt.us](mailto:arussell@ci.burlington.vt.us)

802) 865-7547 Direct Line  
(802) 865-7155 Front Desk  
(802) 865-7117 Fax

Web Site: [www.cedoburlington.org](http://www.cedoburlington.org)  
Community and Neighborhood Services at CEDO:  
[www.cedoburlington.org/neighborhoods/ccan\\_main.htm](http://www.cedoburlington.org/neighborhoods/ccan_main.htm)  
What's New at CEDO: [www.cedoburlington.org/what'snew.htm](http://www.cedoburlington.org/what'snew.htm)

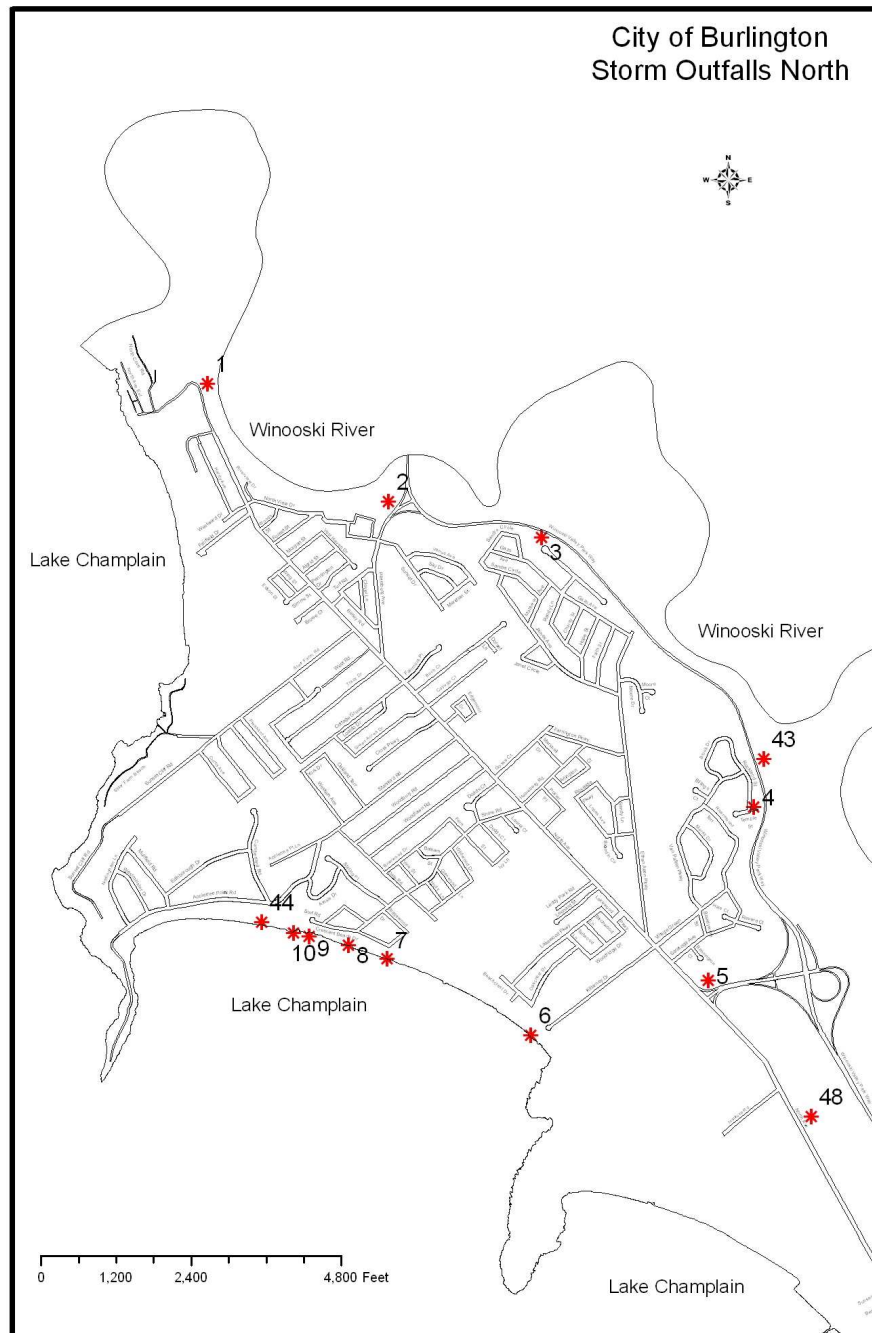
## APPENDIX B – GREEN UP 2008

### Englesby Brook Tire Cleanup

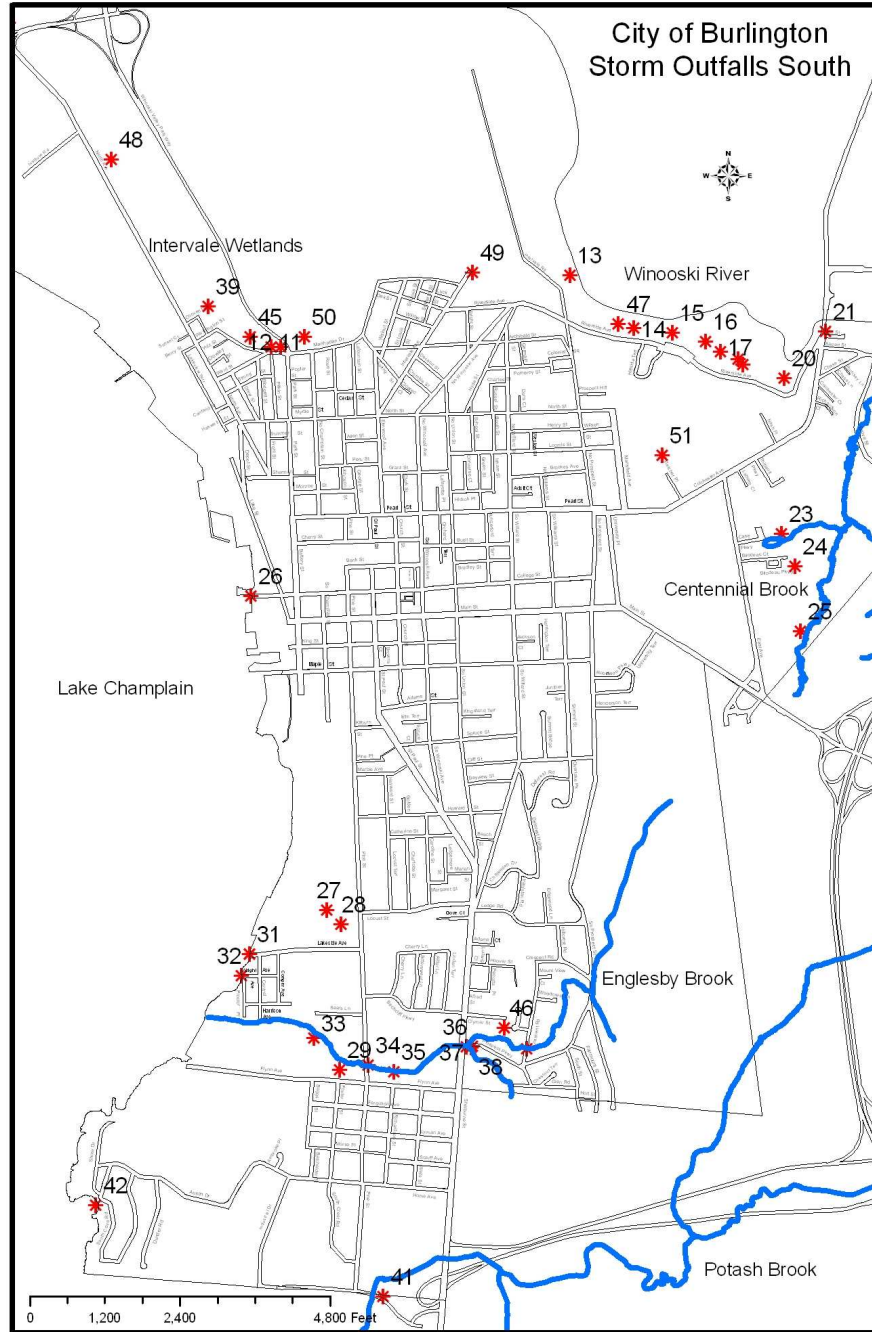




## APPENDIX C – OUTFALL LOCATIONS AND DISCHARGE MONITORING REPORTS



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### MONITORING REPORT FOR DISCHARGES FROM MUNICIPAL STORM SEWER SYSTEMS AUTHORIZED BY GENERAL PERMIT #3-9014

MS4: Burlington                      Comments/Additional Information: Illicit Discharge  
 Discharge Point Name: Plattsburgh Avenue Stormwater System  
 Location: See comments section  
 Watershed/Drainage: Winooski River to Lake Champlain  
 Monitoring Date(s): see below  
 Sample Collected By: S. Roy  
 Analyst or Laboratory: Main WWTP Lab  
 Date(s) of Analysis: same as sample date  
 Analytical Methods: Standard Methods 9223 (*E. Coli*), Optical Brightener

Date/Time	Parameter	Units	Results	Comments
3/10 0747	<i>E. Coli</i>	cfu/100mls	11,199	Outfall (#1 on map)
3/7 - 3/10	Optical B.	none	positive	Outfall (#1 on map)
3/17 1035	<i>E. Coli</i>	cfu/100mls	565	Outfall (#1 on map)
3/11 – 3/17	Optical B.	none	positive	Outfall (#1 on map)
3/17 1045	<i>E. Coli</i>	cfu/100mls	>24,192	Manhole at Plattsburgh/Sunset
3/11 – 3/17	Optical B.	none	positive	Manhole at Plattsburgh/Sunset
3/17 1055	<i>E. Coli</i>	cfu/100mls	200	Manhole near 110 Plattsburgh Ave
3/11 – 3/17	Optical B.	none	negative	Manhole near 110 Plattsburgh Ave
3/25 1240	<i>E. Coli</i>	cfu/100mls	11,530	Manhole near 154B Plattsburgh Ave
3/20 – 3/25	Optical B.	none	positive	Manhole near 154B Plattsburgh Ave
3/25 1250	<i>E. Coli</i>	cfu/100mls	630	Manhole at Plattsburgh/Turf
3/20 – 3/25	Optical B.	none	positive	Manhole at Plattsburgh/Turf
9/11 0750	<i>E. Coli</i>	cfu/100mls	359	Outfall (#1 on map)
9/8 – 9/11	Optical B.	none	negative	Outfall (#1 on map)

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Approved by: Steven Goodkind

(Authorized Agent for Permittee)



## APPENDIX D – Municipal Operations



### CITY OF BURLINGTON DEPARTMENT OF PUBLIC WORKS

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Burlington, VT 05401  
802.863.9094 VCOX  
802.863.0465 FAX  
802.863.0450 TTY  
www.burlingtondpw.com

Steven Goodkind, P.E.  
DIRECTOR OF PUBLIC WORKS  
CITY ENGINEER

Norm Baldwin, P.E.  
Assistant Director of Public Works  
Safety Officer

Ned H. Molt  
Assistant Safety Officer  
ned.holt@dpw.ci.burlington.vt.us

NEED  
CERTIFICATION

Training:	Erosion Control-Tools & Techniques for Jobsite Compliance	
Trainer:	Pete Hanrahan, CPESC Everett J. Prescott, Inc.	
Session #1	Where:	Conference Room Central Maintenance Facility 645 Pine Street
	When:	7:00a.m.-12:00p.m. Friday, September 12, 2008
Those Attending	Adam Lafountain	
Marty Hornick	Adam Lafountain	
Parks Employee #2	Leo Legrand	
Steve Roy	Dennis Sumner	
Joseph Benoit	Jason Wimble	
Edin Delahmetovic	Jim Ritchie	
Rich Gilstrap	Jeanne Francis	
Don Robear	Tim Ahonen	
Code Person #4	Bernie Baker	
Brian Besette	Carnell Jones	
Scott Phillips	Ernie Johnson	
Scott Smith	Zach Cheever	
Doug Bedell	Ray Savage	
Doug Hall	Bruce Hathaway Jr.	
Leonard Ducharme	Tyler Scott	
Chris Poplawski	Steve Hammond	
Lee Perry	Ruben Beltran	
Ishmal Beltran	Carlos Rosa	

ANSON Gordon  
Norman Brusca

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KEVIN MITCHELL B.E.D  
Bill P. Smith  
B.E.D  
D.C.W.



## APPENDIX D – Municipal Operations

### Fletcher Place Stormwater Outfall



Existing Broken Outfall Pipe



New Outfall (green pipe) and Bank Stabilization

**Chapter 26**  
**WASTEWATER, STORMWATER, AND POLLUTION CONTROL**

**ARTICLE 1. GENERAL PROVISIONS**

**Sec. 26-1-1. Purpose & Authority**

A. This Chapter is adopted pursuant to 24 V.S.A. § 2291, subsection (14), and §§ 48 (6), 48 (21), 48 (23), 48 (56), 48 (59), 48 (61), 222, 225, 248 of the Burlington Charter. Its provisions shall be civil ordinances within the meaning of 24 V.S.A. Chapter 59, in order to establish charges, rules and regulations for the control and operation of the municipal water pollution control department, and the charges, rules and regulations herein established are enacted for such purpose.

B. The Director of the Department of Public Works shall have general charge of the municipal water pollution control department, subject to federal and state law, the ordinances of the city and the direction of the commissioners.

C. This Chapter also establishes minimum stormwater management requirements and erosion controls to protect and safeguard the general health, safety, and welfare of the public, Lake Champlain, and its tributaries. The Chapter objectives are to:

1. minimize stormwater runoff from development in order to reduce flooding, siltation, streambank erosion, and to maintain the integrity of natural stream channels;
2. prevent erosion and the transport of sediment and pollutants off property lots, onto the City of Burlington streets and sidewalks and into the City of Burlington separate stormwater system, combined sewer system and/or waters of the State (including streams, lakes, ponds and wetlands);
3. minimize the effects of non-point source pollution on surface water and groundwater water quality;
4. minimize the total volume of surface water runoff that flows from any site during and following development in order to replicate the pre-development hydrology to the maximum extent practicable;
5. reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through stormwater management controls and best management practices and to ensure that these controls and practices are properly maintained and pose no threat to public safety;
6. employ stormwater management and erosion control strategies and best management practices that protect and enhance water quality and lead to an overall improvement in the quality of the waters of the state to the maximum extent practicable;
7. meet the requirements of the Vermont 2002 Stormwater Manual Vol. I and II (or latest State standard) and Stormwater Management Rules Ch. 18 and 22 to the maximum extent practicable; and,
8. protect the water quality of Vermont's streams, ponds, wetlands, and lakes, including Lake Champlain and the City's public and private beaches.

D. The provisions of this Chapter are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Chapter or the application thereof to any person,

establishment, or circumstances shall be held invalid, it shall not affect the validity or application of other provisions of this Chapter.

E. If the provisions of this Chapter conflict with the provisions of any other valid and enforceable Burlington Ordinance(s), the stricter shall prevail.

## **Sec. 26-1-2. Definitions**

Unless the context specifically indicates otherwise, the meaning of terms used in this Chapter shall be as follows:

1. *Agent* shall mean a person authorized to act in the place of another person.
2. *Agricultural Use* shall mean any accepted agricultural practices as defined by the Vermont secretary of agriculture, food and markets.
3. *Applicant* shall mean a property owner or duly designated representative who files an application for an activity or permit subject to this Chapter.
4. *Best Management Practices, or BMPs* shall mean a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to the waters of the state.
5. *Biochemical oxygen demand (BOD<sub>5</sub>)* shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter in five (5) days at twenty (20) degrees centigrade, as determined in accordance with standard methods, and expressed in milligrams per liter.
6. *Building drain* shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet outside the inner face of the building wall.
7. *Building Inspector* shall mean the Building Inspector for the City of Burlington.
8. *Building Permit* shall mean a permit approved by the Building Inspector which authorizes any land disturbance activities in the City of Burlington.
9. *Building sewer* shall mean the extension from the building drain to the public sewer or other place of disposal, also called the house connection.
10. *Cesspool* shall mean a pit or dry well for disposal of sewage.
11. *City Engineer* shall mean the City Engineer of the Department of Public Works for the City of Burlington.
12. *Clearing* shall mean any activity that removes the vegetative surface cover.
13. *Coliform count* shall mean the number of all coliform bacteria and expressed in the number of coliform bacteria per one hundred (100) milliliters of solution, as determined in accordance with standard methods.
14. *Color of liquid* shall mean the appearance of a liquid from which the suspended solids have been removed, as determined in accordance with standard methods.
15. *Combined sewer* shall mean a sewer intended to receive both waste water and storm or surface water.
16. *Committed reserve capacity.* That amount of total average daily flow (gallons per day) from all projects approved by the city and the Vermont Department of Environmental Conservation for discharge to the treatment plant, but not yet discharging at the time of the calculation.
17. *Construction and Construction Activity* shall mean activity that will result in land disturbance of 400 or more square feet and/or where any change in existing hydrological conditions is proposed, regardless of the amount of proposed impervious surface or disturbed area.

18. *Department of Public Works* shall mean the employees or designees of the Director of Public Works.
19. *Designated Enforcement Officer* shall mean the City of Burlington's Code Enforcement Office, except that the Excavation Inspector at the Department of Public Works shall be the Designated Enforcement Officer for all projects, conditions, or activities within the public right-of-way.
20. *Development Review Board, or DRB* shall mean the Development Review Board for the City of Burlington.
21. *Director* shall mean the Director of Public works or his/her designee.
22. *Drainage Course or Drainage Way* shall mean any channel that conveys surface runoff throughout the Site.
23. *Erosion Control* shall mean a measure that prevents erosion.
24. *Erosion Prevention and Sediment Control Plan or EPSC Plan* shall mean a set of plans indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.
25. *Final Site Stabilization* shall mean that A) all soil disturbing activities at the site have been completed and either 1) a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or 2) equivalent final stabilization measures (such as the use of gravel, riprap, gabions, or geotextiles) have been employed as determined by the Department of Public Works; B) when background native vegetation will cover less than 100% of the ground (e.g., arid areas, beaches), the 70% coverage criteria is adjusted as follows: if the native vegetation covers 50% of the ground, 70% of 50% ( $0.70 \times 0.50 = 0.35$ ) would require 35% total cover for final stabilization. On a beach with no natural vegetation, no stabilization is required; C) for individual lots in residential construction, final stabilization means that either 1) the homebuilder has completed final stabilization as specified above, or 2) the homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land, staging areas for highway construction, etc.), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to "waters of the United States," and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization criteria A) or B) above.
26. *Floatable oil* is oil, fat or grease in a physical state such that it will separate by gravity from waste water by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable fat if it is properly pretreated and the waste water does not interfere with the collection system.
27. *Garbage* shall mean the animal and vegetable waste resulting from the handling, preparation, cooking and serving of foods.
28. *Grading* shall mean any excavation or fill of material, including the resulting conditions thereof.
29. *Green or Green Infrastructure* shall mean an adaptable term used to describe an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use

soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits. Green Infrastructure is as described in the EPA's 2008 Action Strategy "Managing Wet Weather with Green Infrastructure," as may be amended.

30. *Hazardous Materials* shall mean any material that is a waste with properties that make it dangerous or potentially harmful to human health or the environment and defined as hazardous waste by the Environmental Protection Agency.
31. *Industrial wastes* shall mean the waste water from industrial processes, trade or business as distinct from domestic or sanitary wastes.
32. *Illegal Discharge* shall mean any unpermitted, unapproved or prohibited discharge to a Public Sewer and Natural Outlet, except as exempted in Article 3, Division 2 of this Chapter.
33. *Illicit Connections* shall mean any connection which allows an illegal discharge as noted in "illegal discharge" above.
34. *Impervious Surface* shall mean those surfaces that can not effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, whether such surfaces are gravel, dirt or paved etc.).
35. *Industrial Activity* shall mean activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b) (14).
36. *Infiltration Basin* shall mean any structure or device designed to infiltrate retained water to the subsurface.
37. *Land Disturbance Activity* shall mean any land disturbance that disturbs or breaks the topsoil or results in the movement of earth on land or regardless of the amount of impervious surface or disturbed area proposed where any change in existing hydrological conditions is proposed, including but not limited to activities associated with development such as clearing, grubbing, excavation, demolition, stockpiling, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, foundations or utilities; erection of temporary forms; and installation of accessory buildings such as garages.
38. *Low Impact Development, or LID* shall mean a comprehensive stormwater management and site-design technique. Within the LID framework, the goal of any construction project is to design a hydrologically functional site that mimics predevelopment conditions. This is achieved by using design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site. LID is a versatile approach that can be applied to new development, urban retrofits, and revitalization projects. This design approach incorporates strategic planning with micro-management techniques to achieve environmental protection goals while still allowing for development or infrastructure rehabilitation to occur.
39. *Maintenance Agreement* shall mean a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.
40. *Maximum Extent Practicable* shall mean the same as is meant in the federal Clean Water Act and shall include use of controls to reduce the discharge of pollutants such as

- management practices, control techniques and system design and engineering methods and other provisions as the City determines are appropriate to control such pollutants.
41. *Municipal Separate Storm Sewer System, or MS4* shall mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, road gutters, ditches, manmade channels, or storm drains): (i) owned or operated by the City of Burlington that discharges to surface waters or ground water.; (ii) designed or used for collecting or conveying storm water; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR, Section 122.2
  42. *National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit* shall mean a permit issued by EPA (or by the State of Vermont under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.
  43. *Natural outlet* shall mean any public or private outlet, including storm sewers and combined sewer overflows, that flows or discharges into a watercourse, pond, ditch, lake or other body of surface or groundwater.
  44. *Non-point Source Pollution* shall mean pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include but is not limited to, pollutants from mining, construction, subsurface disposal and urban runoff sources.
  45. *Owner* shall mean any person, firm, partnership, association, joint venture, corporation or other entity or combination of entities who alone, jointly, or severally with others hold(s) legal or equitable title to any real property. The term “owner” shall also include heirs, successors, and assigns.
  46. *Person* shall mean any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner, the owner's agent, or the operator of a premises.
  47. *pH* shall mean the reciprocal of the logarithm of the hydrogen ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water, for example, has a pH value of 7 and a hydrogen ion concentration of  $10^{-7}$ .
  48. *Phenolic compounds* shall mean those hydroxy derivatives of benzene, or its condensed nuclei, which can be identified by the 4-Aminoantipyrine method or other method in accordance with standard methods.
  49. *Pollutant* shall mean anything which causes or contributes to pollution. Pollutants may include, but are not limited to: water, sediment; paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, pharmaceuticals and endocrine disrupters; herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.
  50. *Premises* shall mean any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.
  51. *Privy* shall mean an outhouse or an enclosed pit that is used as a toilet.
  52. *Properly shredded garbage* shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch in any dimension.
  53. *Public sewer* shall mean a sewer controlled by a governmental agency or public utility.

54. *Sanitary sewer* shall mean a sewer that carries liquid- and water-carried wastes from residences, commercial buildings, industrial plants, and institutions together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.
55. *Sediment* shall mean soil, sand, and minerals washed from land into surface waters or onto other lands.
56. *Sediment Control* shall mean measures that prevent eroded sediment from leaving the Site.
57. *Sewage* is the spent water of a community. The preferred term is now wastewater.
58. *Sewer* shall mean a pipe or conduit that carries water from any source, including but not limited to water, stormwater, waste water or drainage water.
59. *Shall* is mandatory, as opposed to “May” which is permissive.
60. *Silvicultural use* shall mean any accepted silvicultural practices as defined by the Vermont commissioner of forests, parks and recreation.
61. *Site* shall mean a parcel of land, water area or a contiguous combination thereof, where any land disturbances or construction or construction activity occurs.
62. *Site* shall also incorporate the definition found in the Vermont Stormwater Management Rule, Ch. 18-201 (20).
63. *Slug* shall mean any discharge of water or waste water which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four-hour concentration or flows during normal operation and shall adversely affect the collection system and/or performance of the waste water treatment works.
64. *Soil Erosion* shall mean when land or soil is diminished or worn due to wind or water.
65. *Stabilization* shall mean the use of accepted practices that prevent exposed soil from eroding.
66. *Standard methods* shall mean the methods and procedures set out in the edition of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association and current at the time of any examination of waste water.
67. *Start of Construction* shall mean the first land disturbing activity, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages.
68. *Storm sewer (sometimes termed storm drain)* shall mean a sewer or drain for conveying water, groundwater, subsurface water, or unpolluted water from any source, public or private.
69. *Stormwater* shall mean precipitation and snowmelt, including material dissolved or suspended in it. Stormwater may infiltrate into pervious surfaces, evaporate, or runoff impervious surfaces.
70. *Stormwater Management* shall mean the use of structural or non-structural practices that are designed to reduce storm water runoff pollutant loads, discharge volumes, peak flow discharge, increase infiltration and reduce detrimental changes in stream temperature that affect water quality and habitat as well as other functions.
71. *Stormwater Runoff* shall mean flow on the surface of the ground, resulting from precipitation and snowmelt that does not infiltrate into the soil, including material dissolved or suspended in it.
72. *Stormwater Management Plan or Program* shall mean a comprehensive program to manage the quality and quantity of stormwater discharged from a property subject to this Chapter.



73. *Stormwater Treatment Practices* shall mean measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and water bodies.
74. *Surface Waters* shall mean any receiving waters existing on the surface of the ground, including but not limited to; brooks, streams, rivers, wetlands, ponds, or lakes.
75. *Suspended solids* shall mean total suspended matter that either floats on the surface of, or is in suspension in, water, waste water or other liquids, and that is removable by laboratory filtering as prescribed in standard methods and referred to as nonfilterable residue.
76. *Temporary Site Stabilization* shall mean protecting soils in areas where additional soil disturbance activities are to occur from erosion by rainfall, runoff, or wind with a surface cover, including but not limited to, establishment of ground vegetation, application of mulch, rolled erosion control products, gravelling or paving.
77. *Uncommitted reserve capacity*. That amount of average daily flow (gallons per day) calculated as follows: Plant permit flow limit minus the most recent twelve (12) months' actual average daily flow to the plant minus the summation of the estimated average daily flows of all projects approved by the Vermont Department of Environmental Conservation and the City of Burlington but not yet discharging to the sewer.
78. *Unpolluted water* is water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the sanitary sewers and waste water treatment works provided.
79. *User* shall mean the owner of any premises which utilizes or is connected to the principal sewer system.
80. *Wastewater* shall mean a combination of liquid- and water-carried wastes, other than uncontaminated stormwater, discharged from premises.
81. *Wastewater facilities* shall mean the collection system, structures and equipment required to collect and transport domestic and industrial wastes to the waste water treatment works.
82. *Wastewater treatment works* shall mean an arrangement of devices and structures for treating wastewater, industrial wastes, and sludge. Used as synonymous with water pollution control or wastewater plant.
83. *Watercourse* shall mean any body of water, including, but not limited to lakes, ponds, rivers, streams, and bodies of water delineated by the City of Burlington.
84. *Waterway* shall mean a channel that directs surface runoff to a watercourse or to the public storm drain.
85. *Zoning Administrator* shall mean the Zoning Administrator for the City of Burlington.
86. *Zoning Permit* shall mean a document signed by the Zoning Administrator authorizing land development pursuant to the requirements of the Comprehensive Development Ordinance.

### **Section 26-1-3. Documents Incorporated by Reference**

1. City of Burlington Comprehensive Development Ordinance, and as amended.
2. City of Burlington Excavation Ordinance, Chapter 27, and as amended.
3. City of Burlington, Department of Public Works Public Sewers, Stormwater and Erosion Control Specifications, Standards and Management Practices Design Manual, per Sec. 26-100, 6)



4. Vermont Stormwater Management Rule, Chapters 18 and 22, July 4, 2005, and as amended.
5. Vermont Stormwater Manual, 2002, Volumes I and II, and as amended.
6. Vermont Standards & Specifications for Erosion Prevention & Sediment Control, 2006, and as amended.
7. Clean Water Act, National Pollutant Discharge Elimination Systems (NPDES) permits:
  - a) Vermont Agency of Natural Resources, Department of Environmental Conservation, General Permit 3-9020 (2006) for stormwater runoff from construction sites, and as amended.
  - b) City of Burlington MS4 (NPDES) General Permit No. 3-9014 and as amended.
  - c) City of Burlington Discharge Permit (CWA) Final Discharge Permit No. 3-1331, 3-1247 and 3-1245, Part 1, Section F. Combined Sewer Overflows, and as amended.
8. EPA "Managing Wet Weather with Green Infrastructure Action Strategy", January 2008, and as amended.
9. Vermont Agency of Natural Resources, Department of Environmental Conservation, Environmental Protection Rules, Chapter 1, effective September 29, 2007, and as amended.
10. EPA "Combined Sewer Overflows: Guidance for Nine Minimum Controls" May 1995, and as updated.
11. Burlington's Guidelines for Stormwater Pollutant Reduction, September 1999 and as may be amended.

## **ARTICLE 2. SEWERS, WASTEWATER AND POLLUTION CONTROL**

### **DIVISION 1. NOTICE OF SEWER CAPACITY**

#### **Sec. 26-2-1. Notice of sufficient capacity.**

- A. The wastewater division shall issue a "notice of sufficient capacity" for each project it has determined can be handled by the appropriate treatment plant or sewer system.
- B. The city plumbing inspector shall issue no plumbing permit; the city health and safety administrator shall issue no certificate of occupancy; nor shall any wastewater permit or permit for sewer connection provided by this Ordinance be issued until a notice of sufficient capacity, signed by an authorized representative of the city, has been issued.
- C. A notice of sufficient capacity is valid for only twelve (12) months, unless the city determines that a project commencement has been delayed beyond that period for reasons beyond the control of the owner, such as Act 250 review.
- D. A notice of sufficient capacity shall not be granted to a project whose owner has a delinquent material and labor bill for water service installation or repair work at any property of that owner.
- E. The notice of sufficient capacity is not transferable to other projects.
- F. Any person who violates any provision of this division shall be punished as provided in Section 1-9 of this Code of Ordinances.

## **DIVISION 2. WASTEWATER PERMITTING**

### **Sec. 26-2-2. Adoption of Wastewater Disposal Regulations**

When the City of Burlington becomes a “Delegated Municipality” pursuant to the State Wastewater System and Potable Water Supply Rules, Subchapter 7 – Delegation the provisions of this division shall apply and all permits required under the State Wastewater System and Potable Water Supply Rules shall be issued in accordance with the state’s regulations and rules. For the purposes of the delegated state program, the only exceptions under the state rules that will be recognized by the city are those for projects that qualified for them before the date of delegation.

### **Sec. 26-2-3. Applicability of Regulations**

No individual subsurface sewage disposal system, no shared or community subsurface sewage disposal system, no connection to municipal sewer system, shall be built, altered, or used except in accordance with Article 2 of this chapter and any other applicable rules or regulations, and only after a permit has been issued by the Director.

Where a municipal sanitary sewer is not available for connection from a building, and a sewage treatment facility involving an effluent to waters of the state is not available, the building sewer shall be connected to a subsurface sewage disposal system complying with the provisions of Article 2 of this chapter and any other applicable rules or regulations.

In the case of any other applicable regulations, bylaw, ordinance, or statute which differs from the requirements hereof, the more strict shall apply.

### **Sec. 26-2-4. Performance Standards**

The purpose of this regulatory system is to prevent health hazards and environmental damage caused by the improper treatment and disposal of wastewater. Wastewater treatment and disposal systems, whether onsite individual systems or connections to the municipal system, shall be designed, constructed, and operated so as to:

- A. Prevent the creation of health hazards;
- B. Prevent surfacing sewage or the pollution or contamination of drinking water supplies, groundwater, and surface water;
- C. Insure that facilities are designed and constructed in a manner which will promote sanitary and healthful conditions during operation and maintenance.

### **Sec. 26-2-5. Procedure for Application for Permit**

The application requirements are specified in section 1-302 of the state Environmental Protection Rules. The city shall provide an application form for wastewater permit requests.

No person shall design a wastewater system that requires a permit under this Article without first obtaining a designer license from the Vermont Agency of Natural Resources.

### **Sec. 26-2-6. Innovate/Alternative Systems and Products**

Only those innovate/alternative systems and produces approved for use by the Vermont Agency of Natural Resources shall be eligible for use in the city.

### **Sec. 26-2-7. Appeals**

Appeals in the case of issuance of a ticket under section 26-2-8 below shall be governed by the provisions of 4 V.S.A. Chapter 29. All other appeals shall be governed by the following provisions:

- A. An applicant that has been denied a permit or has been denied a portion of the initial request may appeal the Director's decision to the Public Works Commission within 15 days of the decision.
- B. An interested party may request that the Director revoke an approved permit under section 26-2-10.
- C. An interested party may request that the Public Works Commission revoke an approved permit under section 26-2-10 if the party has first requested revocation under this section and is not satisfied with the ruling of the Director.

### **Sec. 26-2-8. Inspection**

No underground piping, connection to the municipal sewer system, septic tank, or leeching facilities shall be covered until they have been inspected and approved for covering by the Director. No building requiring a wastewater permit under this Article shall be occupied until such facilities have been certified by the Director as being in compliance with this Article. The Director may waive the requirement for an inspection if written certification of compliance with the provisions of this Article is provided by a Vermont licensed professional engineer or site technician to the Director.

### **Sec. 26-2-9. Existing Facilities**

Where a sewage system or connection to the municipal sewer system exists prior to the effective date of this Ordinance, and the Director determines that it is creating a health hazard or health nuisance, the Director shall advise, in writing, the property owner of the inadequate condition and, when necessary, shall issue a written order for compliance with these regulations. The property owner shall subject a proposed modification to the system to the Director for review and approval, in accordance with the application procedure outlined in this Article.

### **Sec. 26-2-10. Revocation of Permits**

A wastewater permit may be revoked by the Director for any of the following reasons:

- A. False, fraudulent, or misleading information contained in the permit application.
- B. Installation of an onsite system or connection to the municipal sewer system which does not comply with the conditions of the permit.
- C. Alteration of the onsite system or connection to the municipal sewer system so that it does not comply with this Article.
- D. Information which shows that the proposed onsite system or connection to the municipal sewer system will not comply with this Article.
- E. Failure to comply with this Article or any terms or conditions of permits issued under this Article.

The Director shall give the permit holder written notice of revocation of the permit within seventy-two (72) hours of revocation. All sewage disposal system work must cease immediately upon notification of revocation of permit.

The revocation will be held as a contested case per 3 V.S.A. Chapter 25.

#### **Sec. 26-2-11. Violations**

Violations of the requirements of this Article shall be pursued under the provisions of Article 4 of this Chapter.

### **DIVISION 3. WASTEWATER & WATER POLLUTION CONTROL CHARGES**

#### **Sec. 26-2-12. Industrial user charges.**

In situations where an applicable industrial user exists, there shall be established a user charge and industrial cost recovery in accordance with appropriate federal and state rules and regulations, pertaining to the cost associated with the use of the sewer system by said industrial user.

#### **Sec. 26-2-13. Nonindustrial user charges.**

For the purpose of paying interest and principal on bonds of the city issued for waste water purposes, as well as the expense of maintenance and operation of the waste water division and the sewerage system, there is hereby levied and assessed upon each user a waste water charge, payable as provided in this Division.

#### **Sec. 26-2-14. Wastewater charge.**

For any user the waste water charge shall be based upon the consumption of water upon the premises as measured by the city water meter or meters or as estimated where appropriate by the public works department.

#### **Sec. 26-2-15. Minimum charge.**

There may be a minimum monthly waste water charge based upon a schedule prescribed by the public works commission and approved by the city council.

#### **Sec. 26-2-16. Determination of charges when city water not used.**

In the event any user uses water from some other source than the city supply, so that all of the water used thereon is not measured by a city water meter, or by a meter acceptable to the Director, then in each such case the Director shall otherwise measure or determine the amount of water so used in order to determine the waste water charge, as provided in this Article, which shall in such event bear the same proportion to city water charges as in the case of metered premises, or the owner or other interested party may, at his own expense, install and maintain a meter acceptable to the Director for said purpose.

#### **Sec. 26-2-17. Adjustment of charges in special cases.**

Any premises to which city water is supplied for manufacturing, commercial, or irrigation purposes, in such a manner that a substantial portion of the same is not returned to the city sewer system, shall be entitled, upon application therefore, to such abatement in the waste water charge, as the Director shall determine to be equitable under the circumstances. Any person dissatisfied with such determination by the Director may apply first to the public works commission for an adjustment thereof, and thereafter to the city council whose decision shall be final.

**Sec. 26-2-18. When payments due.**

The waste water charges levied and assessed by this Article shall be due and payable when rendered.

**Sec. 26-2-19. Penalty for late payment; disconnection.**

A. A penalty of one (1) per cent shall be added to any waste water charge due where such charge remains unpaid every thirty (30) days following the date such charge was first rendered. Such charges shall be a lien upon the real estate furnished with service as provided in Section 3612 of Title 24, Vermont Statutes Annotated.

B. At his discretion, the Director where appropriate, may utilize the procedures provided for in 24 Vermont Statutes Annotated, Section 5149, et seq., "Uniform Water and Sewer Disconnect Act," in accordance with the provisions therein, to disconnect the water service of a delinquent ratepayer.

**Sec. 26-2-20. To whom payments made.**

Waste water charges pursuant to this Article shall be payable at the Water Division.

**Sec. 26-2-21. Use of proceeds.**

The receipts of the waste water division system shall constitute a separate fund, known as the waste water division fund. All receipts shall be used and applied to pay the expense of operation and maintenance of the waste water division and to pay the interest and principal of the water pollution control bonds of the city and capital improvement projects of the public works department waste water division. The city chief financial officer shall periodically, when principal and interest on general obligation bonds are due and payable, transfer to the general fund of the city from said waste water division fund a sum sufficient to meet the principal payments on such bonds falling due in that fiscal year, and to the general credit of the city a sum sufficient to meet interest payments on such bonds falling due in that fiscal year.

**DIVISION 4. USE OF PUBLIC SEWERS****Sec. 26-2-22. Use of Public Sewers**

A. Every person owning or having the care of buildings abutting on a street in this city through which a sanitary or combined sewer has been or shall hereafter be constructed shall drain such buildings wastewater into the sanitary or combined sewer, at their own expense, provided that all connections into the public sewers be made under the direction of the Director upon the written application of such person. The Director shall supervise the making of all such connections.

B. Every person owning or having the care of lands and buildings abutting on a street in this city through which a storm or combined sewer has been or shall hereafter be constructed shall drain stormwater from such land and buildings after treatment and/or attenuation into the storm or combined sewer or natural outlet, at his own expense, provided that all connections into the public sewers and natural outlets be made under the direction of the Director upon the written application of such person and in accordance with the provisions of this Chapter. The Director shall supervise the making of all such connections.

C. Express Prohibitions.

1. It shall be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the city or in any area under the jurisdiction of the city, any human or animal excrement, garbage, or objectionable waste.

2. Except as provided herein, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of waste water.

3. No person shall discharge, cause or permit to be discharged any storm water, surface water, groundwater, foundation drains, roof runoff, subsurface drainage, cooling water, or industrial process waters to any sanitary sewer. This prohibition does not apply to the combined or separate storm sewers.

4. No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers or natural outlet:

a) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas.

b) Any waters containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any waste treatment process, constitute a hazard to humans, animals or property, create a public nuisance, or create any hazard, including fire or explosion, in the receiving waters of the waste water treatment plant or wastes exerting an excessive chlorine requirement. The limiting concentrations of such substances that create hazards as aforesaid are subject to modification by the Director as affected by applicable state or federal regulations or guidelines.

c) Any waters (except acidic rainfall) or wastes having a pH lower than five (5) or greater than nine and five tenths (9.5), or which due to its nature or content, becomes less than five (5) or greater than nine and five tenths (9.5) during transmission through the sewers, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the waste water facilities or treatment works.

d) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the waste water facilities such as, but not limited to, animal waste, ashes, bones, cinders, sand, mud, sediment, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood or cellulose, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, either whole or ground by garbage grinders.

e) Radioactive materials of such half-life or concentration as may exceed limits established by the Director of water pollution control in compliance with applicable state or federal regulations.

f) Wastewater that has or may cause an offensive odor or nuisance in the waste water facilities and treatment works, and without limiting the generality of the foregoing, waste water containing hydrogen sulfide, carbon disulfide, ammonia, trichloroethylene, sulfur dioxide, formaldehyde, chlorine, bromine, or pyridine.

g) Wastewater having a temperature higher than one hundred fifty (150) degrees Fahrenheit (sixty-five (65) degrees Celsius).

h) Wastewater containing more than fifteen (15) milligrams per liter, whether emulsified or not, of petroleum oil, non-biodegradable cutting oils, or products of mineral oil origin.

i) Wastewater containing more than one hundred (100) mg/l of oil, fat and grease of animal and vegetable origin.

j) Wastewater containing floatable oils, fat or grease.

k) Wastewater containing pharmaceuticals or endocrine disrupters.

D. The owner(s) of all houses or buildings, used for human occupancy, employment, recreation, or other purposes, situated within the city and abutting on any street, alley, or right-of-way in which there is now located or may in the future be located a public sanitary or combined sewer of the city is hereby required, at the owner(s)' expense, to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this Article within ninety (90) days after date of official notice to do so, provided that said public sewer is within a reasonable distance of the property line as determined by the Director.

E. Stormwater and other unpolluted drainage may be discharged to a storm sewer or to a natural outlet as approved by the Director when suitable treatment and/or attenuation has been provided in accordance with the provisions of this Chapter. Stormwater and other unpolluted drainage may be allowed to be discharged to a combined sewer as approved by the Director provided that it does not violate Wastewater Facility NPDES permit requirements. Industrial cooling or unpolluted process waters may be discharged to a storm sewer or natural outlet as approved by the Director provided that these waters do not result in adverse undue thermal impacts to receiving waters.

F. The following described substances, materials, waters or wastes shall be limited in discharges to municipal systems to concentrations or quantities which will not harm either the sewers, wastewater treatment process or equipment, will not have an adverse effect on the receiving stream, or will not otherwise endanger lives, limb, public property, or constitute a nuisance.

The Director may set limitations lower than the limitations established in the regulations below if in his opinion such more severe limitations are necessary to meet the above objectives. In forming this opinion as to the acceptability, the Director will give consideration to such factors as the quantity of subject waste in relation to flows and velocities in the sewers, materials of construction of the sewers, the wastewater treatment process employed, capacity of the wastewater treatment plant, degree of treatability of the waste in the wastewater treatment plant, and other pertinent factors.

The limitations or restrictions on materials or characteristics of waste or wastewaters discharged to the sanitary sewers which shall not be violated without approval of the Director are as follows:

- a) Wastewater of which the BOD<sub>5</sub> exceeds four hundred (400) milligrams per liter.
- b) Wastewater in which suspended solids exceed five hundred (500) milligrams per liter, or the organic content of such suspended solids or of dissolved solids is unusually small.
- c) Any garbage that has not been properly shredded. Garbage grinders may be connected to sanitary sewers from homes, hotels, institutions, restaurants, hospitals, catering establishments, or similar places where garbage originates from the preparation of food in kitchens for the purpose of consumption on the premises or when served by caterers.
- d) Quantities of flow, concentrations, or both which constitute a slug as defined herein.
- e) Waters or wastes containing substances which are not amenable to treatment or reduction by the waste water treatment processes employed, or are amenable to treatment only to such degree that the waste water treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.
- f) Any water or wastes which, by interaction with other water or wastes in the public sewer system, release obnoxious gases, form suspended solids which interfere with the collection system, or create a condition deleterious to structures and treatment processes.

G. If any waters or wastes are discharged or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics, enumerated in subsections C 4 and F above, and which in the judgment of the Director may have a deleterious effect upon the waste water facilities or treatment works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Director may:

- a) Reject the wastes.
- b) Require pretreatment to an acceptable condition for discharge to the public sewers.
- c) Require control over the quantities and rates of discharge.
- d) If the Director permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the Director, and subject to the requirements of all applicable codes, ordinances, laws, and the municipal discharge permit. Further, such



pretreatment installations must be consistent with the requirements of any state pretreatment permit issued to the owner.

H. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Director, they are necessary for the proper handling of liquid wastes containing floatable grease in excessive amounts or any flammable wastes, sand or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Director, and shall be located as to be readily and easily accessible for cleaning and inspection. In the maintaining of these interceptors the owner shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates and means of disposal which are subject to review by the Director. Any removal and hauling of the collected materials not performed by owner's personnel must be performed by qualified waste disposal firms.

I. Where pretreatment or flow equalizing facilities are provided or required for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his sole expense.

J. When required by the Director, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable structure together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such structure when required, shall be accessibly and safely located and shall be constructed in accordance with plans approved by the Director. The structure shall be installed by the owner at his sole expense and shall be maintained by him so as to be safe and accessible at all times.

K. All industries discharging into a public sewer shall perform such monitoring of their discharges as the Director and/or other duly authorized employees of the city may reasonably require, including installation, use, and maintenance of monitoring equipment, keeping records, and reporting results of such monitoring to the Director. Where industrial pretreatment permits are issued by the State of Vermont, monitoring records must also be submitted to the secretary in accord with such permit. Such records of any monitoring shall be made available upon request by the Director to the secretary or to other agencies having jurisdiction over discharges to the receiving waters.

The Director shall require forty-five (45) days' prior notification by any person or persons of a proposed substantial change in volume or character of pollutants over that being discharged into the treatment works; a proposed new discharge into the treatment works of pollutants from any source which would be a new source as defined in the federal Water Pollution Control Act as amended, if such source were discharging pollutants; or a proposed new discharge into the treatment works of pollutants from any source which would be subject to the federal Water Pollution Control Act, as amended, if it were discharging such pollutants.

L. All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in this Article shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association. Sampling methods, location, times,

durations, and frequencies are to be determined on an individual basis subject to approval by the Director.

M. No statement contained in this Division shall be construed as preventing any special agreement or arrangement between the city and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the city for treatment, to an extent fixed by agreement with the city under such conditions with respect to payment or otherwise as may be necessary to compensate for any additional costs of treatment; provided that such agreements do not contravene any requirements or existing federal laws and are compatible with any user charge and industrial cost recovery system in effect. Any such agreement shall be subject to the approval of the State of Vermont Department of Environmental Conservation.

N. No statement contained in this Division shall be construed to interfere with any additional requirements that may be imposed by the city health officer.

O. No unauthorized person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Director per Division 1 of this Article. Any person proposing a new discharge into the system, or a substantial change in the volume or character of pollutants that are being discharged into the system, shall notify the Director at least forty-five (45) days prior to the proposed change or connection.

P. Applications for a plumbing permit shall be filed with the Department of Public Works and must be approved before any work commences. Fees associated with this permit are outlined in the permit application.

Q. All costs and expenses incidental to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

R. A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the front building may be extended to the rear building and the whole considered as one building sewer, but the city does not and will not assume any obligation or responsibility for damage caused by or resulting from any such single connection.

S. Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Director to meet all requirements of this Article.

T. The size, slope, alignment, materials of construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling the trench, shall all conform to the requirements of the building and plumbing code or other applicable rules and regulations of the city.

U. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to

permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building sewer.

V. The connection of any building sewer into the public sewer shall conform to the requirements of the building and plumbing code and all other applicable rules and regulations of the city. All such connections shall be made gastight and watertight and verified by proper testing. Any deviation from the prescribed procedures and materials must be approved by the Director before installation.

W. The applicant for any building sewer permit shall notify the inspector when the building sewer is ready for inspection and connection to the public sewer. The connection and testing shall be made under the supervision of the inspector.

X. All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parking and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the city and consistent with the requirements of Chapter 27 of this code of ordinances.

#### **Sec. 26-2-23. Construction requirements for private drains connecting to sewers.**

All private drains connecting with a public sewer shall be constructed of SDR 35 PVC pipe that meets or exceeds standard ASTM D2321 not less than four (4) inches in diameter or such other pipe as the Director may approve, and all joints of such drains shall be so made as to prevent the escape of gas there from. Cellar drains shall be laid on an inclination or pitch of not less than one-quarter inch to two (2) feet; and all sewage drains shall be laid on an inclination or pitch of not less than one-quarter inch to one foot.

#### **Sec. 26-2-24. Private waste water treatment.**

A. Where a public sanitary or combined sewer is not available under the provisions of section 26-2-22, the Director may require that the building sewer shall be connected to a private waste water treatment system complying with the provisions of this section and the requirements set forth in the latest edition of the Vermont Environmental Protection Rules.

B. Before commencement of construction of a private waste water treatment system the owner(s) shall first obtain a written permit signed by the Director per Division 1 of this Article. The application for such permit shall be made on a form furnished by the city, which the applicant shall supplement by any plans, specifications, and other information deemed necessary by the Director.

C. A permit for a private waste water treatment system shall not become effective until the installation is completed to the satisfaction of the Director. The Director or his/her designee shall be allowed to inspect the work at any stage of construction, and, in any event, the applicant for the permit shall notify the Director when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within seventy-two (72) hours of the receipt of notice by the Director.

D. The type, capacities, location, and layout of a private waste water treatment system shall comply with all applicable regulations and guidelines of the State of Vermont. No septic tank shall be permitted to discharge to any natural outlet.

E. At such time as a public sewer becomes available to a property served by a private waste water treatment system, a direct connection shall be made to the public sewer within sixty (60) days in compliance with this Article, and any septic tanks, cesspools, and similar private waste water facilities shall be cleaned of sludge and any supernatant liquid and filled with suitable material.

F. The owner(s) shall operate and maintain the private waste water treatment facilities in a sanitary manner at all times, at no expense to the city. Sludge, together with any supernatant liquid, shall be removed from private treatment systems only by operators qualified for such removal. If the operator wishes to dispose of the sludge within the city he may do so only at one of the treatment plants upon approval of the Director and payment of a disposal charge, such charge to be determined by the Director according to a schedule which he shall adopt and post at all treatment plants.

G. No statement contained in this Article shall be construed to interfere with any additional requirements that may be imposed by the health officer.

#### **Sec. 26-2-25. Protection from damage.**

No person(s) shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance or equipment which is a part of the wastewater facilities or treatment works.

#### **Sec. 26-2-26. Powers and authority of inspectors.**

A. The Director and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation, measurement, sampling, and testing pertinent to discharge to the community system in accordance with the provisions of this Article and may secure warrants from the applicable court having jurisdiction in cases where admission is refused.

B. The Director or other duly authorized employees are authorized to obtain information concerning industrial processes which have a direct bearing on the kind and source of discharge to the wastewater collection system. The industry may withhold information considered confidential. The industry must establish that the revelation to the public of the information in question might result in an advantage to competitors.

C. While performing the necessary work on private properties under this Article the Director or duly authorized employees of the city shall observe all safety rules applicable to the premises.

#### **Sec. 26-2-27 Wastewater Permit Fees.**

Work done pursuant to the requirements of this Article shall require the filing of a permit application and payment of a \$50.00 fee to the Director. No work shall be commenced until

the permit shall have been received by the party submitting the application and the permit fee has been paid for connection to the public sewer. In the event of state delegation as referenced in division 1 of this article, this permit fee shall not be required and only those fees allowed under the applicable state regulations and rules shall be assessed.

## **ARTICLE 3. STORMWATER & EROSION CONTROL**

### **DIVISION 1. GENERAL PROVISIONS**

#### **Section 26-3-1. Applicability**

A. Except as exempted under item D below, this Article shall apply to all property within the City of Burlington, and shall apply specifically to:

1. construction activities that include land disturbance activities and are subject to Major Impact, Subdivision, and/or Planned Unit Development zoning permit review as defined in the Comprehensive Development Ordinance, and/or are subject to building permit or approval under any regulation or ordinance of the City of Burlington;
2. any construction activity that include land disturbance activities of 400 square feet or more and are subject to zoning permit review other than noted in a) above and/or are subject to building permit or approval under any regulation or ordinance of the City of Burlington;
3. any condition or activity, regardless of the amount of impervious surface or disturbed area proposed, where there exists any hydrological condition which may lead to offsite sediment runoff or other pollutant load to a public sewer or natural outlet.
4. illegal discharges and/or connections into any premise, public or private property, driveway, parking area, street, alley, sidewalk, component of the MS4, CS, or Public Sewer.

B. All projects, conditions, and activities that are subject to this Article must meet the minimum requirements of this Article, and reserved.

C. All projects, conditions, and activities that are subject to this Article shall be determined by the Department of Public Works to be compliant with:

1. the City's MS4 General Permit No. 3-9014, as issued and as amended by the State of Vermont; and,
2. the City's Combined Sewer Overflows and Sewer Ordinance conditions of and Final Discharge Permit No. 3-1331, 3-1247 and 3-1245, Part 1, Section F. Combined Sewer Overflows and Section I. Sewer Ordinance, as issued and as amended by the State of Vermont; and,
3. where applicable, the Vermont Stormwater Manual design requirements to the maximum extent practicable as determined by the Director, and,

D. The following projects, conditions and activities are exempt from this Article:

1. Any emergency activity that is immediately necessary for the protection of life, property or natural resources as determined by the Department of Public Works.

2. Any accepted agricultural or silvicultural practices as defined by the Vermont secretary of agriculture, food and markets, or the Vermont commissioner of forests, parks and recreation, respectively.
3. Any athletic/sports facility commonly involving bare earth, such as baseball diamonds and volleyball courts.
4. Bulk storage of landscaping materials such as topsoil, gravel, and mulch within compounds or bunkers for commercial or governmental use, so long as such storage does not directly result in offsite sedimentation.

E. The requirements of this Article may be waived in whole or in part by the Director at the Department of Public Works on a case by case basis upon written request of the applicant, provided that it is demonstrated by the applicant that at least one of the following conditions applies:

1. alternative measures for on-site and/or off-site management of erosion and stormwater have been proposed, and these measures comply with City ordinance(s) and permits, or
2. it is otherwise demonstrated that the proposed development will not produce any significant change to the existing pre-application hydrology and will not contribute substantially to offsite sediment runoff or other pollutant loads resulting in little to no impact on stormwater quality.

#### **Section 26-3-2. Application Requirements.**

A. Unless otherwise exempted or waived by this Article, every zoning permit application involving Major Impact, Subdivision, and/or Planned Unit Development review per Sec. 26-3-1, A, 1 shall be accompanied by the following, as applicable:

- (1) A written approval from the Department of Public Works for discharge to or connection with Public Sewers,
- (2) An "Erosion Prevention and Sediment Control (ESPC) Plan",
- (3) A "Stormwater Management Plan", and,
- (4) A written determination from the Department of Public Works that the project for which a permit is requested complies with the City's MS4 General Permit, CS discharge permit and the Vermont Stormwater Manual design requirements.

B. Unless otherwise exempted or waived by this Article, every other project, condition or activity per Sec. 26-3-1, A, 2 and 3 shall be accompanied by the following, as applicable:

1. A written approval from the Department of Public Works for discharge to or connection with Public Sewers,
2. A completed Small Project Erosion and Sediment Control Plan approved in writing by the Department of Public Works,
3. A "Stormwater Management Plan", and,
4. A written determination from the Department of Public Works that the project for which a permit is requested complies with the City's MS4 General Permit, CS discharge permit and the Vermont Stormwater Manual design requirements.

C. Prior to commencement of the project, condition, or activity, the applicant shall submit site plans and designs and any supporting documentation to the Department of Public Works for review and approval. No project, condition, or activity shall commence until the Department of Public Works has reviewed and issued a written approval.

D. The City shall prescribe the form(s) and information that shall be submitted to determine compliance with this Article, with sufficient copies for necessary referrals and records.

### **Section 26-3-3. Responsibilities**

A. The Department of Public Works, in consultation with the Department of Planning & Zoning, shall administer and implement the provisions of this Article. The Code Enforcement Office shall enforce the provisions of this Article in the event of a violation.

B. The standards set forth herein and promulgated pursuant to this Article are minimum standards; therefore this Article does not intend nor imply that compliance by any Person will ensure that there will be no contamination, pollution, nor unauthorized discharge or discharge of pollutants.

## **DIVISION 2. ILLEGAL DISCHARGES**

### **Section 26-3-4. Applicability**

This Division applies to all properties within the jurisdictional area of this Chapter, unless specifically exempted by Section 26-3-6.

### **Section 26-3-5. Prohibitions**

#### **A. Illicit Connections**

1. No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any premise, public or private property, driveway, parking area, street, alley, sidewalk, component of the MS4, CS or Public Sewer, or any surface water of the City of Burlington, any object or material, including but not limited to: water, refuse, rubbish, garbage, animal waste, litter, yard waste, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution, or interfere with the operation, maintenance and access to the MS4, CS or Public Sewer. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

2. The construction, use, maintenance or continued existence of illicit connections to the MS4, CS or Public Sewer is prohibited.

3. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

#### **B. Illegal Discharges**

1. No person shall discharge or cause to be discharged into the MS4, any materials, including but not limited to pollutants or waters containing any pollutants, other than stormwater, or any materials that may impede the natural flow of stormwater or the functionality of the MS4 without first receiving written authorization from the Director upon a determination that such discharge is in compliance with this Division and other applicable City ordinances, regulations or permits.

2. No person shall discharge or cause to be discharged into the CS and/or Public Sewer without first receiving written authorization from the Director upon a determination that such discharge is in compliance with the City's Final

Discharge Permit No. 3-1331, 3-1247 and 3-1245, Part 1, Section F. Combined Sewer Overflows and Section I. Sewer Ordinance as issued and as amended by the State of Vermont; and, the provisions of the City of Burlington Ordinances.

#### **Section 26-3-6. Exemptions**

The commencement or continuance of any illegal discharge to the MS4, and/or surface or groundwater, CS or Public Sewer is prohibited except as described as follows:

- A. Water line flushing or other potable water sources, landscape irrigation or lawn watering, approved stream flow diversions, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wetland flows, swimming pool draining (if dechlorinated - typically less than one PPM chlorine), fire fighting activities, and any other water source not containing Pollutants.
- B. Discharges specified in writing by the Director of the Department of Public Works as being necessary to protect public health and safety.
- C. Dye testing is an allowable discharge, but requires a verbal notification to the Department of Public Works prior to the time of the test.
- D. The prohibition shall not apply to any stormwater or non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the MS4 by the Department of Public Works.
- E. Discharges specifically allowed and not prohibited under the City's Final Discharge Permit No. 3-1331, 3-1247 and 3-1245, as issued and as amended by the State of Vermont; and,
- F. Discharges specifically allowed and not prohibited under the Section 26-2-22 of this Chapter.

#### **Section 26-3-7. Industrial or Construction Activity Discharges**

Any person subject to an industrial or construction activity NPDES storm water discharge regulation, and/or permit shall comply with all provisions of such regulation and/or permit. Proof of compliance with said regulation and/or permit may be required in a form acceptable to the Director prior to the allowing of discharges to the MS4.

#### **Section 26-3-8. Monitoring of Discharges**

This section applies to all premises that have storm water discharges associated with industrial activity, construction activity, and post-construction (operational) stormwater management.

- A. The Department of Public Works shall be permitted to enter and inspect any premise subject to regulation under this Division as often as may be necessary to determine compliance with this Division. If a person has security measures in force which require proper identification and clearance before entry into its premise, the person shall make the necessary arrangements to allow access to representatives of the Department of Public Works.



- B. A person shall allow the Department of Public Works ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit, a Vermont post-construction (operational) stormwater management permit, a zoning permit, a building permit or approval under any regulation or ordinance of the City of Burlington to discharge storm water, and the performance of any additional duties as defined by state and federal law. All monitoring data shall be recorded in the associated permit/approval files and entered into the city's permitting system.
- C. The Department of Public Works shall have the right to set up on any permitted premises such devices as are necessary in the opinion of the Director to conduct monitoring and/or sampling of the premises storm water discharge.
- D. The Director has the right to require a person to install monitoring equipment as necessary. The sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the owner or operator of the premise at their own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure their accuracy. The owner or operator of the premise shall demonstrate calibration techniques and satisfactory operation of the devices to the Department of Public Works upon request.
- E. Any temporary or permanent obstruction to safe and easy access to the premises to be inspected and/or sampled shall be promptly removed by the owner or operator of the premise at the written or oral request of the Department of Public Works and shall not be replaced. The costs of clearing such access shall be borne by the owner or operator of the premise.
- F. Unreasonable delays in allowing the Department of Public Works access to permitted premises are a violation of this Division. A person who is the operator of a premise with a NPDES permit to discharge storm water associated with industrial activity or construction activity, a Vermont post-construction (operational) stormwater management permit, a zoning permit, a building permit or approval under any regulation or ordinance of the City of Burlington commits an offense if the person denies the Department of Public Works reasonable access to the permitted premises for the purpose of conducting any activity authorized or required by this Division.
- G. If the Department of Public Works has been refused access to any part of the premises from which storm water is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this Division, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this Division or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Director may seek issuance of a search warrant from any court of competent jurisdiction.

#### **Section 26-3-9. Control, Prevention and Reduction of Stormwater Pollutants**

The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the MS4, and/or surface or groundwater, CS or Public Sewer through the use of structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illegal discharge and/or illicit connection, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the MS4, and/or surface or groundwater, CS or Public Sewer. Compliance with all terms and conditions of a valid

NPDES or MSGP permit, a Vermont post-construction (operational) stormwater management permit, a zoning permit, a building permit or approval under any regulation or ordinance of the City of Burlington authorizing the discharge of stormwater, shall be deemed to be in compliance with the provisions of this section.

### **Section 26-3-10. Notification of Spills**

Notwithstanding other requirements of law, as soon as any person responsible for a premises or operation, or responsible for emergency response for a premises or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into the MS4, and/or surface or groundwater, CS or Public Sewer, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the Department of Public Works either in person, by phone, or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Department of Public Works within three business days of the phone notice.

If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge, steps taken to remediate said illicit discharge, and the actions taken to prevent its recurrence. Such records shall be retained on-site by the owner or operator for at least three years.

## **DIVISION 3. EROSION PREVENTION AND SEDIMENT CONTROL**

### **Sec. 26-3-11. Applicability of Erosion Prevention and Sediment Control**

This Division applies to all properties within the jurisdictional area of this Chapter, unless specifically exempted or waived by Section 26-3-14.

### **Sec. 26-3-12. Prohibitions**

No person subject to this Article as defined by section 26-3-1, shall cause, allow or permit the discharge and/or release of any sediment or other pollutant created by soil erosion to a public sewer or natural outlet unless such discharge and/or release is incidental to the implementation of an approved EPSC plan under this Division.

### **Sec. 26-3-13. Permits**

Except as exempted or waived per Sec. 26-3-14, no person shall be granted a Zoning Permit, Building Permit, Excavation Permit or any other approval for any project, condition or land disturbance activity regulated under this Article without the written approval of an Erosion Prevention and Sediment Control Plan by the Department of Public Works.

### **Sec. 26-3-14. Exemptions and Waivers**

The discharge and/or release of any sediment from land disturbance activities subject to this Division is prohibited except exempted or waived by Section 26-3-1, D or E.

## **Sec. 26-3-15. Erosion Prevention and Sediment Control Requirements**

### **A. Design Requirements**

All erosion prevention practices, sediment control practices, waterway and watercourse protection practices and construction site access practices shall meet the design criteria set forth in the Vermont Standards & Specifications for Erosion Prevention & Sediment Control, 2006, and as amended, City of Burlington, Department of Public Works Public Sewer, Stormwater and Erosion Control Specifications, Standards and Management Practices Design Manual, latest version, and the Burlington Comprehensive Development Ordinance, latest version, and shall be adequate to prevent transportation of sediment from the site to the satisfaction of Department of Public Works. In the event of conflicting design criteria within these standards, the stricter shall prevail.

### **B. General Performance Criteria for Erosion Prevention and Sediment Control**

The following are required performance criteria:

1. Prevent erosion and the transport of sediment off lot, onto the public streets and sidewalks, into the municipal stormwater system, and/or waters of the State. Earthen material hauled offsite by way of a dump truck or similar method does not constitute erosion or sedimentation;
2. Prevent parking of any construction or construction related vehicles on City owned green space. Damage to green space shall be immediately addressed;
3. Take any and all steps necessary to abate erosion and to clean up all resulting sediment deposited, discharged or found to exist off lot, on City streets and sidewalks, and/or in the City stormwater system;
4. Maintain project erosion prevention and sediment control devices/measures and perform requisite cleanup of resulting sedimentation. This may include, but is not limited to, daily sweeping of streets and sidewalks and cleaning City stormwater catch basins;
5. Specify appropriate seed and fertilizer applications that are ecologically sound and site specific;
6. Specify an appropriate mulch when and where needed and adequate anchoring measures to prevent mulch from being blown away;
7. Specify an effective grass re-vegetation program. Turf replacement is recommended in areas where re-vegetation of grass proves difficult with seeding and mulch. To reestablish all existing and proposed green space and, where practical, consider porous (pervious) pavers and associated pervious subsurface;
8. Engage the contractor to be proactive in planning and executing construction phase activities with the goal of preventing erosion and controlling sediment;

9. Identify the parties to the EPSC plan and clearly define their respective roles and responsibilities including, but not limited to, the contractor, the onsite erosion coordinator, those responsible for project adherence to the EPSC, and those participating in inspections and acceptance of final site stabilization; and,

10. Define the overall strategy for the EPSC plan by:

- a) Limiting actual disturbance area and time of disturbance;
- b) Employing proper site stabilization (addressing soil preparation for final seeding and landscaping, seed, pesticide/herbicide use, and mulch);
- c) Specifying stone and/or grass swale lining where appropriate;
- d) Specifying when and where necessary to employ erosion control blankets or mats;
- e) Specifying locations for silt fence and construction barrier fence; and,
- f) Specifying catch basin inlet protection during construction, clean up and maintenance and post-construction (operational) system operation and maintenance.

11. Prior to and during construction, erosion control measures shall be installed and maintained in accordance with EPSC plan established with this permit approval. At a minimum, the project EPSC plan shall:

- a) Identify the contractor who is responsible for installing, implementing, and maintaining the EPSC plan and measures;
- b) Identify the on-site contractor who is responsible for the day-to-day monitoring, oversight, and inspections required in the EPSC plan;
- c) Assure that any amendments to the project EPSC plan are filed with the Department of Public Works and the Department of Planning & Zoning;
- d) Provide that the erosion control measures remain in place until vegetation has become established on all disturbed surfaces and clearly identify under what conditions final site stabilization has occurred; and,
- e) Provide a process whereby the Department of Public Works and/or the Department of Planning & Zoning participate in the final site stabilization program.

C. Major Impact, Subdivision, and/or Planned Unit Development projects:

1. Each EPSC Plan shall address:

- a) *Construction Access Route* – Construction activities and land disturbing activities subject to the provisions of this Division shall require the installation of at least one stabilized temporary construction access. Construction site access routes regulated under this Division shall be clearly delineated of the project site plans and subject to

approval by the Department of Public Works.

b) *Winter Site Stabilization*- All land disturbance activity where practical shall be scheduled for completion no later than October 15 and temporary site stabilization achieved no later than October 15. By the end of the growing season, perennial cover shall be established (seed and mulch to be applied by October 1) and non-vegetated protection measures shall be installed by October 15 and continuously thereafter if land disturbance activities occur after the growing season. In the event land disturbance activities are planned to occur between the dates of October 15 and April 15, approval for such work may be granted by the Department of Public Works, following the submittal and approval of a Winter Construction Erosion Control Plan consistent with the Vermont Standards & Specifications for Erosion Prevention & Sediment Control, 2006, and as amended.

c) *Temporary Site Stabilization* - Soil may be exposed for a maximum of 48 hours.days. All denuded and disturbed areas must receive temporary stabilization in conformance with this section by implementing soil covering BMPs such as, but not limited to; mulching, straw matting, plastic covering, sodding, etc. Construction and land disturbance activities shall be planned and sequenced to limit the amount of exposed area and to avoid occurring during rainy periods. Clearing limits shall be clearly marked on-site and kept as small as possible.

d) *Protection of Adjacent Properties* – All sediment from land disturbing activities shall be kept on site through the use of cover practice BMPs, structural BMPs and other appropriate construction management measures. Where possible, a vegetative buffer strip shall be preserved and maintained around the site boundary. All soil stock piles on site shall be placed as far as possible from any and all drainage ways including storm drains systems and roadside ditches and swales. All soil stockpiles on site shall be placed within the development envelope and outside of any natural area buffers (wetlands, riparian, etc.) All soil piles on site shall also be covered with mulch, plastic or some other suitable cover practice BMP until the soil is either used or removed from the site. Silt fencing and/or other perimeter controls shall be implemented to inhibit offsite sediment transport. Where possible, a vegetated buffer strip shall be maintained in front of silt fence or its equivalent.

e) *Maintenance* – All construction access routes, cover practice BMPs and structural BMPs shall be inspected weekly, and immediately following each rain event causing runoff to ensure they are functioning properly. Any maintenance that is required to ensure the proper operation and performance of these BMPs shall be completed immediately.

f) *Landscaping and Final Stabilization Requirements* – Any area of land for which the natural vegetative cover has been either partially or wholly cleared or removed by land disturbance activities subject to this Division shall be revegetated within 21 days from initial disturbance for such clearing and construction. Additionally, the following requirements apply until such time as final site stabilization has been achieved:

- i) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over 90% of the seeded

area.

- ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.
- iii) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.
- iv) Any and all accumulated sediments transported off site and deposited onto City Streets, and Sidewalks shall be routinely and frequently swept up and properly disposed of so as to prevent their discharge into stormwater and/or the City's Public Sewer.

## 2. Plan Requirements

The Erosion Prevention and Sediment Control Plan shall be prepared by or under the direction of a licensed professional engineer, a certified professional in erosion and sediment control (CPESC), or a certified inspector in erosion and sediment control (CIESC) and demonstrate conformance to the erosion and sediment control requirements and criteria contained in Section 26-3-15 C of this Division. All erosion and sediment control devices must be installed and stabilized before the start of construction. The Erosion Prevention and Sediment Control Plan shall contain both narrative and map(s) that clearly provide the following information:

- a) *Contact Information* – The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.
- b) *General Description* - A general description of the project including a map identifying the location of the property and parcel boundaries.
- c) *Natural Resources* - A map of existing on site natural resources including soil type (including porosity and erodibility factor (k-factor) if available), types and location of vegetative covering, natural drainage ways, brooks, streams, ponds, wetlands and other surface waters (including intermittent streams) and associated buffer zones, including any surface waters within 300 feet from the site.
- d) *Grading Plan* – A grading plan at a minimum scale of 1" = 40'. The grading plan shall include existing and proposed contours at maximum intervals of five feet. The grading plan shall also include the location of the temporary construction entrance and any soil stockpiles that will be maintained on the site.
- e) *Infrastructure* - A map identifying existing infrastructure both on and adjacent to the site, including roads, driveways, culverts, drainage structures, roadside ditches, etc.
- f) *BMPs* - A description of each of the best management practices to be used on the site, and a map identifying the locations where each of the best management practices will be installed and maintained.
- g) Maintenance schedule for each BMP.

### D. All other Projects, Conditions, or Activities

The Erosion Prevention and Sediment Control Plan shall consist of a completed Small Project Erosion Prevention and Sediment Control form and shall:

1. Indicate disturbance limits and the protection of existing vegetation that is to be preserved,
2. Depict clearing and grading limits, which shall be kept to the minimum practicable,
3. Address diverting the flow of runoff away from cleared and graded areas,
4. Address temporary and permanent stabilization of the site.
5. Address the protection of any channels or drainage courses that may become enlarged or destabilized from erosion.
6. Address the protection of any stormwater catch basin that may receive stormwater from the site during and after construction, and
7. Indicate the best management practices that shall be implemented consistent with achieving the general performance criteria of section 26-3-15 C

#### **Sec. 26-3-16. Review and Approval**

The Department of Public Works will review each Erosion Prevention and Sediment Control Plan to determine its conformance with the provisions of this regulation, unless such review is explicitly exempted within this Article. Within 30 days after receiving a complete plan and application, the Department of Public Works, shall in writing:

- A. Approve the plan;
- B. Approve the plan subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Division, and require that the issuance of the Zoning and/or Building Permit be subject to these conditions; or
- C. Disapprove the plan, indicating the reason(s) and procedure for submitting a revised plan.

#### **Sec. 26-3-17. Access to Land Disturbance Activities**

The Department of Public Works shall be permitted to enter and inspect any land disturbance activities subject to regulation under this Division as often as may be necessary to determine compliance with this Division.

#### **Sec. 26-3-18. Inspection Requirements**

A. Except as provided for in item C below, the Department of Public Works shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the Erosion Prevention and Sediment Control Plan as approved. To obtain inspections, the applicant or their agent shall notify the Department of Public Works at least two working days before the following:

1. Start of construction.
2. Installation of sediment and erosion control measures.
3. Completion of site clearing.
4. Completion of rough grading.
5. Completion of final grading and close of construction season.
6. Completion of final landscaping.

B. Major Impact, Subdivision, and/or Planned Unit Development projects will generally require separate site visits for each of the foregoing items a) – f). All other projects, conditions, or activities may entail consolidated site visits for two or more of the foregoing items depending on the size of the project, condition, or activity.

C. For Major Impact, Subdivision, and/or Planned Unit Development projects, the Department of Public Works may allow or require that the applicant or their agent provide a written certification from a professionally licensed engineer, a certified professional in erosion and sediment control (CPESC), or a certified inspector in erosion and sediment control (CIESC) certifying compliance to the Erosion Prevention and Sediment Control Plan as approved.

D. For all other projects, activities, or conditions, inspections shall be conducted by the Department of Public Works as noted in this section.

E. In any event, the applicant or their agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Erosion Prevention and Sediment Control Plan.

#### **DIVISION 4. STORMWATER MANAGEMENT**

##### **Sec. 26-3-19. Applicability**

This Division applies to all properties within the jurisdictional area of this Chapter, unless specifically exempted or waived by Section 26-3-22.

Specifically, this Division applies to any land disturbance activities within the jurisdictional area of this Chapter that result in greater than or equal to ½ acre of clearing, grading, construction or land disturbance activity, and creates greater than or equal to ½ acre of impervious surface, unless otherwise exempted or waived under Section 26-3-22.

##### **Sec. 26-3-20. Prohibitions**

No person subject to this Article as defined by section 26-3-1, shall cause, allow or permit the discharge, connection and/or release of stormwater runoff to a public sewer or natural outlet unless such discharge, connection and/or release is incidental to the implementation of an approved Stormwater Management plan under this Division.

##### **Sec. 26-3-21. Permits**

Unless exempted under Sec. 26-403, no person shall be granted a Zoning Permit, Building Permit, Excavation Permit or any other approval for any project, condition or land disturbance activity regulated under this Division without the written approval of a Stormwater Management Plan by the Department of Public Works.

##### **Sec. 26-3-22. Exemptions and Waivers**



The discharge, connection and/or release of stormwater from any project, condition or land disturbance activity regulated under this Article is prohibited except as provided in Section 26-3-1 D or E and/or any land disturbance activity that creates less than ½ acre of impervious surface.

### **Sec. 26-3-23. Stormwater Manual**

The stormwater manual as referenced in this Article refers to the technical analysis and design standards specified in the Vermont Stormwater Manual (Volumes I and II), latest revision and to the City of Burlington, Department of Public Works Stormwater and Erosion Control Specifications, Standards and Management Practices Design Manual.

### **Sec. 26-3-24. Stormwater Treatment Standards and Treatment Practice Design Criteria**

The following stormwater treatment standards may apply to those projects, conditions and activities regulated under this Division and where applicable, shall be applied as required and outlined in the Vermont Stormwater Manual, (Volumes I and II), latest revision, to the maximum extent practicable as determined by the Director of the Department of Public Works.

1. Water Quality Treatment Standards
2. Channel Protection Treatment Standards
3. Groundwater Recharge Treatment Standards
4. Over bank Flood Protection Treatment Standards
5. Extreme Flood Protection Treatment Standards and, where applicable
6. Hydraulic Capacity Standard. In instances where discharges, connections and/or releases of stormwater are to City public sewers, infrastructure, and/or facilities, the applicant must make demonstration to the satisfaction of the Director at the Department of Public Works that the public sewer, infrastructure and/or facility has the hydraulic capacity to accommodate the anticipated stormwater runoff flows and volumes without burdening or creating an adverse impact on such infrastructure and facilities. If the hydraulic capacity analyses shows city infrastructure will be exceeded and/or burdened, the applicant may seek to mitigate such impacts through flow reduction, retention, detention, infiltration and/or water re-use stormwater management practices upon the approval of the Director on a case by case basis.

### **Sec. 26-3-25. Use of Alternative Stormwater Management Practices**

The City recognizes that in some instances the ability to strictly meet the requirements of Sec. 26-3-24 Stormwater Treatment Standards and Treatment Practice Design Criteria may not be possible, feasible or desired in an urban landscape. As such the City encourages the use of alternative management practices and technologies as a way to both satisfy the requirements of this Division, to give flexibility to design and to encourage Green Infrastructure (green), Best Management Practices (BMP), Low Impact Design (LID) or other innovative practices that in the opinion of the Department of Public Works satisfies the requirements of this Division. Such practices include but are not limited to, green roofs, alternative detention practices, water reuse, including stormwater use, infiltration practices, including pervious and porous pavements and pavers. See Burlington's Guidelines for

Stormwater Pollutant Reduction, September 1999 and as may be amended and EPA “Managing Wet Weather with Green Infrastructure Action Strategy”, January 2008, and as amended.

Persons subject to this Division may utilize alternative stormwater management Practices as a means of meeting the standards established in Sec. 26-3-24. Persons seeking to employ any alternative practice must provide descriptions and standard details as well as a make a demonstration that such alternative practice meets or exceeds the standards of Sec. 26-3-24, that the standards of 26-3-24 are not applicable, and/or the alternative practice mitigates the impact that Sec. 26-3-24 seeks to address, subject to the Department of Public Works for review and approval. A maintenance and a installation guide shall also be provided to ensure the materials are properly installed. When considering any alternative stormwater management practice, the Department of Public Works will evaluate and determine if such practice is consistent with the City MS4, CSO and Use of Public Sewers permits and ordinances, including this Chapter. Where such management practices are found to be consistent with or likely not to compromise the City MS4, CSO and Use of Public Sewers permits and ordinances, the Department of Public Works may grant their use on a case-by-case basis.

#### **Sec. 26-3-26. Stormwater Management Plan.**

##### **A. Review and Approval**

The Department of Public Works will review each Stormwater Management Plan to determine its conformance with the provisions of this Division, unless such review is explicitly exempted within this Division. Within 30 days after receiving a complete plan and application, the Department of Public Works shall in writing:

1. Approve the plan;
2. Approve the plan subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Division, and require that the issuance of the Zoning Permit and/or Building Permit be subject to these conditions; or
3. Disapprove the plan, indicating the reason(s) and procedure for submitting a revised plan.

##### **B. Plan Requirements**

The Stormwater Management Plan shall be prepared and signed by a licensed, professional engineer who shall verify and demonstrate conformance to the applicable water quality treatment standards and storm water management design criteria contained in this Division. The Stormwater Management Plan shall contain both narrative and map(s) that clearly provide the following information:

1. *Contact Information* - The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected and similar information on the persons charged with the responsibility of constructing, maintaining and managing such stormwater systems.

2. *Site Plan* - A map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural storm water management and sediment control facilities. The map will also clearly show proposed land use with tabulation of total lot size in acres, percentage of surface areas to be disturbed, percentage of existing and proposed impervious surfaces, drainage patterns, locations of utilities, limits of clearing and grading, and all easements, including those easements necessary for required maintenance of all stormwater treatment practices.
3. *Base Map* - A 1" = 200' topographic base map of the site which extends a minimum of 300' {See 5-7 (B)(3)} beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands, including associated buffer zones, and current land use including all existing buildings, utilities, roads, and significant natural and manmade features not otherwise shown.
4. *Calculations* - Sufficient engineering analysis to show that the proposed storm water treatment practices are capable of controlling runoff from the site in compliance with this Division and the Vermont Stormwater Manual. The analysis shall also include hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the Department of Public Works Design Manual with specific emphasis on demonstrating how post-development flows are maintained for discharges to the MS4 and/or where applicable demonstrating how post-development flows are detained for discharges to the CS.
5. *Soils Report* - A soils report that addresses the hydrologic properties of onsite soils shall be submitted. The soils report and accompanying information shall be based on the VSMM (latest edition) or the Underground Injection Control Rule, Chapter 11 (latest edition) which ever is applicable.
6. *Operation Maintenance and Repair Plan* – The design and planning of all stormwater management facilities shall include detailed operation maintenance and repair procedures to ensure their continued function. These plans will identify the parts or components of a storm water management facility that needs to be maintained. The operation and maintenance and repair plan shall also include:
  - a) *A Landscape Plan* – The applicant must present a detailed plan for the management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetation cover is preserved.
  - b) *Maintenance Easements* – Prior to the issuance of any permit that has a stormwater management facility as a requirement, the applicant or owner of the site must execute a maintenance easement that shall be binding on all subsequent owners of land served by the stormwater management facility. The purpose of the maintenance easement shall be to allow access to the stormwater management facility to perform maintenance as required by the maintenance agreement noted in item c) below. The easement shall provide for access to the facility at reasonable times for periodic inspection by the City, or its contractor or agent, and for regular or special assessments of property owners to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this Section. The property owner shall record such

easement, in a form and format approved by the City Attorney, in the City Land Records with the City Clerk's Office.

c) *Maintenance Agreement* – The applicant must execute a maintenance agreement binding on all subsequent owners of land served by an on-site stormwater management measure. The maintenance agreement shall be recorded in the land records before the issuance of a Building Permit and shall specify the required maintenance for all stormwater treatment practices, along with a maintenance schedule specifying when and how often maintenance is performed on the stormwater treatment practices and a demonstrated financial ability to perform such maintenance. Such agreement shall be in a form and format approved by the City Attorney, and be filed in the City Land Records. The owner is responsible for maintenance of stormwater management facilities; however, the City may accept dedication of existing or future stormwater management facilities for public maintenance and inspection.

d) *Maintenance Inspections* - All stormwater management facilities must be inspected by the Department of Public Works no less than once annually to identify maintenance and repair needs and to ensure compliance with the requirements of this Division. Any identified maintenance and/or repair needs found must be promptly addressed by the responsible party. The inspection and maintenance requirement may be increased as deemed necessary by the City to ensure proper functioning of the stormwater management facility.

e) *Records of Installation and Maintenance Activities* - Parties responsible for the inspection, operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs and shall retain the records for at least 5 years. These records shall be made available to the Director upon request and/or as specifically outlined in the maintenance covenant.

f) *Failure to Maintain Practices* - If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the City, after proper notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition and/or shall handle the matter as a violation per Article 4, Penalties and Enforcement, of this Chapter.

7. *Landscaping and Stabilization Requirements* – Any area of land for which the natural vegetative cover has been either partially or wholly cleared or removed by land disturbance activities subject to this Division shall be revegetated within (10) business days from the substantial completion of such clearing and construction. Additionally, the following requirements apply until such time as final site stabilization has been achieved:

a) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over 90% of the seeded area.

b) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

c) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

- d) Any and all accumulated sediments transported off site and deposited onto City Streets, and Sidewalks shall be routinely and frequently swept up to prevent their discharge into stormwater and/or the City's Public Sewer.

#### **Sec. 26-3-27. Access to Stormwater Treatment Practices**

The Department of Public Works shall be permitted to enter and inspect any land or premises where stormwater treatment practices are being, or have been constructed subject to regulation under this Division as often as may be necessary to determine compliance with this Division.

#### **Sec. 26-3-28. City Inspections During Installation and Construction**

The applicant must notify the Department of Public Works or their designee in advance before the start of construction and/or installation of any stormwater management system to alert the Department of Public Works so they may arrange to make regular inspections of the construction of stormwater treatment practices and/or connections to any City infrastructure. If any violations are found, the property owner shall be notified in writing of the nature of the violation and the required corrective actions and shall be subject to the enforcement provision of Article 4 of this Chapter. No additional work shall proceed until any violations are corrected and all work previously completed has received approval from the Department of Public Works.

In lieu of the requirements outlined in this section, the Department of Public Works at their discretion may allow or require that the applicant or their agent provide a written certification from a professionally licensed engineer certifying compliance to the Stormwater Management Plan as approved.

### **DIVISION 5. STORMWATER SYSTEM USER FEES**

#### **Sec. 26-3-29. Establishment of Stormwater User Fees**

A. A user fee based on an Impervious Surface Unit (ISU) shall be imposed on every owner of non-exempt developed property within the City. An ISU shall equal 1,000 square feet.

B. The City Council shall have the authority to set and modify the user fee rates so that the total revenue generated by said charges, and any secondary sources of revenue, shall be sufficient to fund the City's stormwater program.

C. The City Council shall establish by resolution the monthly rate for each ISU. The monthly user fee for a specific property is determined by multiplying the ISU rate times the number of ISUs on the property.

D. The only exempt properties under this Division are those included within the limits of a railroad track right-of-way (property on which railroad stations, maintenance buildings, or other developed land used for railroad purposes is located shall not be exempt) and those included within the limits of a public road right-of-way.

#### **Sec. 26-3-30. Establishment of ISUs:**

A. The following residential property types shall be allocated ISUs based on the group averages and shall be charged a monthly flat fee based on the group average.

1. Detached single family home (not including mobile home) = 2.67 ISUs
2. Two-unit home = 2.65 ISUs
3. Three-unit home = 3.06 ISUs

B. The ISUs allocated to all other property types shall be determined as follows:

1. The amount of impervious surface on each parcel shall be calculated in square feet. That total shall be converted to ISUs for every 1,000 square feet and rounded to the nearest hundred (i.e. a commercial property with 4,780 square feet would have 4.78 ISUs)..
2. The user fee would be based on the number of ISUs (i.e. commercial property with 4.78 ISUs would pay the monthly user fee times 4.78).
3. Owners of property subject to this subsection shall have the right to contest, in writing to the Director, the number of ISUs allocated to their property. In such event, an onsite inspection and calculation of impervious surface shall be conducted jointly by the property owner (or representative) and the Director to determine the number of ISUs. Such determination shall be made by the Director, and such decision may be appealed to the Public Works Commission within 15 days of the determination.

#### **Sec. 26-3-31. Credits**

A. Institutional properties with impervious surface within a publicly owned non-traditional separate MS4 system shall receive a credit on their stormwater user fee. This credit applies only to impervious surfaces generating stormwater runoff that receives detention and water quality treatment within the boundaries of the publicly owned non-traditional separate MS4 system.

B. Properties not subject to a flat fee may be eligible for a credit on their stormwater user fee. Credits shall be available to properties that reduce the volume, or improve the water quality, of stormwater runoff. The degree of credit shall be based on the degree of reduction in stormwater runoff volume and/or the degree of water quality improvement of stormwater runoff. No credit shall exceed 50% of the stormwater user fee, and in no event shall any credit result in a stormwater user fee below the flat fee for a single family home. Credits shall be reviewed and assessed by the Director based on the rules and procedures contained in the Stormwater User Fee Credit Manual. Any award of credit shall be conditioned on continuing compliance with the City's design and performance standards as stated in the Manual and/or upon continuing provision of the systems, facilities, services, and activities provided, operated, and maintained by the property owner or owners upon which the credit is based. The Director may revoke a credit at any time for non-compliance by providing thirty (30) days written notice of a non-complying condition and intent to revoke the credit to the property owner. If the non-compliance is not cured within the thirty (30) day period, the Director shall eliminate the credit. A property owner may appeal the Director's determination regarding credit revocation to the Public Works Commission within 15 days of the determination.

#### **Sec. 26-3-32. Expenditures.**

A. The user fees, as well as any secondary sources of revenue, shall be used to fund the City's efforts to manage stormwater. Acceptable expenditures include, but are not limited to, capital construction, maintenance and operations, engineering and planning, regulation and

enforcement, water quality programs, special services, administration and management, coverage requirements, reserve funds, and miscellaneous overhead costs.

#### **ARTICLE 4. PENALTIES & ENFORCEMENT**

##### **.Sec. 26-4-1. Enforcement Remedies**

The City of Burlington, by and through its authorized agents, shall have the authority to enforce the provisions of this Chapter, and any orders, violation notices, or enforcement orders issued hereunder, and may pursue all civil and criminal remedies in connection with any violation hereunder.

Any person violating any of the provisions of this Chapter shall become liable to the city for any expense, loss or damage occasioned the city by reason of such violation.

Any industry found convicted of a violation of the provisions of this Chapter may have its disposal authorization terminated or suspended by the public works Director

##### **A. Remedies not Exclusive**

The remedies set forth herein are not exclusive of any other remedies available, including criminal prosecution, under any applicable federal, state or local law. Election of one remedy shall not preclude pursuing other remedies and nothing herein shall prohibit the City from seeking multiple remedies. Election of remedies shall be at the discretion of the Designated Enforcement Officer.

##### **B. Judicial Bureau Municipal Civil Complaint Ticket**

Pursuant to 24 V.S.A., Chapters 59 and 61 and 4 V.S.A., Chapter 29, a Designated Enforcement Officer may commence prosecution in the Judicial Bureau for any violation of this Chapter by serving two copies of a municipal civil complaint ticket either in person or by first class mail on the alleged offender, and thereafter promptly filing the original with the Judicial Bureau. The issuing officer shall follow the procedure set forth by the Judicial Bureau for municipal complaint tickets. The first offense ticketed for a violation within a 12 month period shall be punishable by a fine of two hundred dollars (\$200.00), the waiver fee for which shall be one hundred dollars (\$100.00); a second offense ticketed for the same violation within a 12 month period shall be punishable by a fine of four hundred dollars (\$400.00), the waiver fee for which shall be two hundred dollars (\$200.00); a third offense ticketed for the same violation shall be punishable by a fine of five hundred dollars (\$500.00), the waiver fee for which shall be three hundred dollars (\$300.00). The fourth or subsequent offense within a 12 month period shall be a criminal offense punishable pursuant to § 1-9 of this Code of Ordinances.

##### **C. Other Enforcement Remedies Generally; Fines, Injunctive Relief**

1. Expenses for restoration. In addition to any other penalty authorized by this section, any person, partnership, or corporation found to have violated any of the provisions of this Chapter shall be required to bear the expense of the restoration required to abate the violation.

2. Injunctive Relief - An action, injunction, or other enforcement proceeding may be instituted by the City to prevent, restrain, correct, or abate any violation or activity causing a violation. The relief sought may include the right to enter onto private property to abate or correct the violation, to restrain any activity that would create further violations, or to compel a person or persons to perform abatement or remediation of the violation; and to seek damages for all costs, including reasonable attorney's fees, incurred by the City in pursuing and obtaining such relief. In addition to any other remedies authorized in law or equity, the City may seek an order specifically requiring:
  - a) The elimination of illicit connections and/or non-storm water discharges to the MS4;
  - b) The discontinuance of practices, activities, or operations that lead to violations of this Chapter;
  - c) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
  - d) The implementation of source control or treatment through the use of best management practices;
  - e) The performance of monitoring, analysis, and reporting.
3. Offsite remediation. In place of fines, any person, partnership, or corporation found to have violated any of the provisions of this Chapter may perform offsite stormwater and/or erosion control remediation to improve existing stormwater and/or erosion control problems elsewhere in the city. This option shall require the written agreement of the person, partnership, or corporation found to have violated the provisions of this Chapter, the property owner of the offsite remediation site, and the city.

#### D. Stop Work and Abatement Orders

In the event that any person holding a Zoning Permit, Building Permit or approval under any regulation or ordinance of the City of Burlington, violates the terms of this Chapter or alters a site in such a manner as to adversely affect the public health, safety or welfare, the Director or Designated Enforcement Officer may issue a Stop Work and/or Abatement Order.

- END OF DOCUMENT -